	Nemoral	**Cropping system 1: Willow**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Willow I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Willow I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	10000	8000	10000	8000
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Willow I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-120-180-100	30-60-90-50	120-120-180-100	30-60-90-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Willow II-III	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	8.0	5.0	9.0	8.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	6.8	4.3	7.5	6.8
	Water content (%):	50	50	50	50
Willow III	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-0-0-0	30-0-0-0	120-0-0-0	30-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Willow IV-V	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	16.0	10.0	18.0	16.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	13.5	8.5	15.3	13.5
	Water content (%):	50	50	50	50
Willow V	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0	0	0	0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99

	Nemoral	**Cropping system 2: Reed canary grass**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Reed canary grass I	Tillage Plough and disk harrow:		0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:		2.1	2.2	1.6
	MJ h^{-1}:		883.32	883.32	883.32
Reed canary grass I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	20 kg ha^{-1}	20 kg ha^{-1}	20 kg ha^{-1}	20 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Reed canary grass I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-30-130-0	50-10-40-0	140-30-130-0	50-10-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Reed canary grass II	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-30-130-0	50-10-40-0	140-30-130-0	50-10-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Reed canary grass II	Harvest Season:	Spring	Spring	Spring	Spring
	Maize Chopper+Lorry h ha^{-1}:	1.2	1.0	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	13.6	11.7	15.5	13.6
	Water content (%):	23	23	23	23
	Yield marketable product (t ha^{-1} yr^{-1}):	11.5	10.0	13.0	11.5
	Water content (%):	23	23	23	23
Reed canary grass III	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-0-0-0	0-0-0-0	0-0-0-0	0-0-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Reed canary grass III	Harvest Season:	Spring	Spring	Spring	Spring
	Maize Chopper+Lorry h ha^{-1}:	1.2	1.0	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	13.6	11.7	15.5	13.6
	Water content (%):	23	23	23	23
	Yield marketable product (t ha^{-1} yr^{-1}):	11.5	10.0	13.0	11.5
	Water content (%):	23	23	23	23

	Nemoral	**Cropping system 3: Pea – Cereal (barley) - Rapeseed**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Pea I	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content (%):	18/24	18/24	18/24	18/24
	Yield marketable product (t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content (%)	18/24	18/24	18/24	18/24
	Yield straw (t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content (%):	18/24	18/24	18/24	18/24
Barley II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Barley II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Barley II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-50-0	10-50-30-0	30-100-50-0	10-50-30-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Barley II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.4	4.4	8.0	5.4
	Water content (%):	17	17	17	17
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	2.1	3.9	2.6
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.8	2.3	4.1	2.8
	Water content (%):	20	20	20	20
Rapeseed III	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed III	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5

III		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	5.4	3.1	8.2	5.4
	Water content	(%):	15	15	15	15
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.8	1.0	2.8	1.8
	Water content	(%)	9.0	9.0	9.0	9.0
	Yield straw	(t ha^{-1} yr^{-1}):	3.5	2.0	5.2	3.5
	Water content	(%):	15.0	15.0	15.0	15.0

	Nemoral	**Cropping system 4: Hemp - Rapeseed – Pea**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Hemp I	Tillage Plough and disk harrow:	35-40 cm	15-30 cm	35-40 cm	15-30 cm
	h ha^{-1}:	2.9	2.5	2.2	1.8
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Hemp I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	40 kg ha^{-1}	40 kg ha^{-1}	40 kg ha^{-1}	40 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Hemp I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-60-120-0	80-30-60-0	140-60-120-0	80-30-60-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Hemp I	Harvest Season:	Summer	Summer	Summer	Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.0	6.0	10	9.0
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	0.5	0.3	0.5	0.5
	Water content (%)	14.0	14.0	14.0	14.0
	Yield straw (t ha^{-1} yr^{-1}):	6.7	4.5	7.5	6.7
	Water content (%):	14.0	14.0	14.0	14.0
Rapeseed II	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed II	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.4	3.1	8.2	5.4
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.8	1.0	2.8	1.8
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	2.0	5.2	3.5
	Water content (%):	15.0	15.0	15.0	15.0
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6

	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content	(%):	18/24	18/24	18/24	18/24

	Nemoral	**Cropping system 5: Rapeseed-Cereal (barley)-Pea-Rapeseed**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.4	3.1	8.2	5.4
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.8	1.0	2.8	1.8
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	2.0	5.2	3.5
	Water content (%):	15.0	15.0	15.0	15.0
Barley II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Barley II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Barley II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	60-100-50-0	20-50-30-0	60-100-50-0	20-50-30-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Barley II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.4	4.4	8.0	5.4
	Water content (%):	17	17	17	17
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	2.1	3.9	2.6
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.8	2.3	4.1	2.8
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99

Pea III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content (%):	18/24	18/24	18/24	18/24
	Yield marketable product (t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content (%)	18/24	18/24	18/24	18/24
	Yield straw (t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content (%):	18/24	18/24	18/24	18/24
Rapeseed IV	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed IV	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed IV	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-80-70-0	50-40-40-0	100-80-70-0	50-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed IV	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.4	3.1	8.2	5.4
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.8	1.0	2.8	1.8
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	2.0	5.2	3.5
	Water content (%):	15.0	15.0	15.0	15.0

	Nemoral	**Cropping system 6: Rapeseed-Flax-Sunflower**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.4	3.1	8.2	5.4
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.8	1.0	2.8	1.8
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	2.0	5.2	3.5
	Water content (%):	15.0	15.0	15.0	15.0
Flax II	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax II	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	70-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax II	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.7	4.1	6.8	5.7
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.4	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.4	2.4	4.0	3.4
	Water content (%):	14.0	14.0	14.0	14.0
Sunflower III	Tillage Plough and disk harrow:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sunflower	Harvest Season:	Summer	Summer	Summer	Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5

III		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	4.0	3.5	10.0	4.0
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.3	1.0	2.5	1.3
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	2.2	2.0	6.0	2.2
	Water content	(%):	12-13	12-13	12-13	12-13

	Nemoral	**Cropping system 7: Red clover-Rapeseed-Flax**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Red clover I	Tillage Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount kg ha^{-1}:	25	25	25	25
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.1	0.7	0.7
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Red clover I	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.7	0.7	0.5	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	3.1	3.0	3.5	3.4
	Water content (%):	70	70	70	70
Rapeseed II	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed II	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-80-70-0	50-40-40-0	100-80-70-0	50-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.4	3.1	8.2	5.4
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.8	1.0	2.8	1.8
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	2.0	5.2	3.5
	Water content (%):	15.0	15.0	15.0	15.0
Flax III	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax III	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax III	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.7	4.1	6.8	5.7
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.4	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.4	2.4	4.0	3.4
	Water content (%):	14.0	14.0	14.0	14.0

	Continental	**Cropping system 1: Poplar**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Poplar I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Poplar I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	10000	8000	10000	8000
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Poplar I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-40-160-200	30-5-20-50	100-40-160-200	30-5-20-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar II-III	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	9	6	12	9
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	7.5	5.1	10	7.5
	Water content (%):	50	50	50	50
Poplar III	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-0-0-0	30-0-0-0	100-0-0-0	30-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar IV-V	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	18	12	24	18
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	15.3	10.2	20.4	15.3
	Water content (%):	50	50	50	50
Poplar V	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0	0	0	0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99

	Continental	**Cropping system 2: Miscanthus**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Miscanthus I	Tillage Plough and disk harrow:	0-40 cm	0-20 cm	0-40 cm	0-20 cm
	h ha^{-1}:	2.95	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Miscanthus I	Sowing (transplant) Season:	Spring	Spring	Spring	Spring
	Amount:	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Miscanthus I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	80-40-40-40	40-15-15-15	80-40-40-40	40-15-15-15
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Miscanthus I	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	15	12.5	16.5	15
	Water content (%):	40	40	40	40
	Yield marketable product (t ha^{-1} yr^{-1}):	12.5	10.5	14.0	12.5
	Water content (%):	40	40	40	40
Miscanthus II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus II	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	30	25	33	30
	Water content (%):	40	40	40	40
	Yield marketable product (t ha^{-1} yr^{-1}):	25	21	28	25
	Water content (%):	40	40	40	40
Miscanthus III	Fertilization:				
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	Top dressing	-	Top dressing	-
	Fertilizer distributer h ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	MJ h^{-1}:	0.9	-	0.7	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	218.99	-	218.99	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus III	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	30	25	33	30
	Water content (%):	40	40	40	40
	Yield marketable product (t ha^{-1} yr^{-1}):	25	21	28	25
	Water content (%):	40	40	40	40

	Continental	**Cropping system 3a: Cereal (wheat)-Maize-Sunflower-Sorghum-Red clover**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Wheat I	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	0	0	0	0
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	5.0	3.5	9.9	5.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	3.0	2.1	6.0	3.0
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.0	1.4	3.9	2.0
	Water content (%):	20	20	20	20
Maize II	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	200-100-80-0	100-50-40-0	200-100-80-0	100-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize chopper+Lorry: h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	36	21	40	36
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	4.3	2.5	7.3	4.3
	Water content (%)	25	25	25	25
	Yield straw (t ha^{-1} yr^{-1}):	23	13.9	24.8	24
	Water content (%):	48	48	48	48
Sunflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sunflo	Harvest Season:	Summer	Summer	Summer	Summer

wer III	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	4.0	3.5	10.0	4.0
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.3	1.0	2.5	1.3
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	2.2	2.0	6.0	2.2
	Water content	(%):	12-13	12-13	12-13	12-13
Sorghum IV	Tillage Plough and disk harrow:		0-25 cm	No tillage	0-25 cm	No tillage
		h ha^{-1}:	2.1		1.6	
		MJ h^{-1}:	883.32		883.32	
Sorghum IV	Sowing	Season:	Spring	Spring	Spring	Spring
		Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill	h ha^{-1}:	0.4	0.5	0.2	0.3
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum IV	Crop practices					
	Fertilization:		Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.0	0.9	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):		1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):		-	-	-	-
	Crop sprayer	h ha^{-1}:	0.5	0.5	0.3	0.3
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorghum IV	Harvest	Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry	h ha^{-1}:	1.0	0.9	0.8	0.6
		MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	62	40	75	62
	Water content	(%):	67	67	67	67
	Seed Yield	(t ha^{-1} yr^{-1}):	3.4	2.2	4.1	3.4
	Water content	(%)	18.0	18.0	18.0	18.0
	Yield straw	(t ha^{-1} yr^{-1}):	49	31	59	49
	Water content	(%):	70	70	70	70
Red clover V	Tillage	Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
		h ha^{-1}:	2.5	2.0	1.9	1.6
		MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover V	Sowing	Season:	Spring	Spring	Spring	Spring
		Amount kg ha^{-1}:	25	25	25	25
	Seed drill	h ha^{-1}:	0.4	0.4	0.2	0.2
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover V	Crop practices					
	Fertilization:		Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.1	0.7	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Red clover V	Harvest	Season:	Late summer/Fall	Late summer/Fall	Late summer/Fall	Late summer/Fall
	Combine harvester:	h ha^{-1}:	0.7	0.7	0.5	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):		3.1	3.0	3.5	3.4
	Water content (%):		70	70	70	70

	Continental	**Cropping system 3b: Pea-Maize-Sunflower-Sorghum- Red clover**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Pea I	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content (%):	18/24	18/24	18/24	18/24
	Yield marketable product (t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content (%)	18/24	18/24	18/24	18/24
	Yield straw (t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content (%):	18/24	18/24	18/24	18/24
Maize II	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-100-80-0	50-50-40-0	100-100-80-0	50-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	36	21	40	36
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	4.3	2.5	7.3	4.3
	Water content (%)	25	25	25	25
	Yield straw (t ha^{-1} yr^{-1}):	23	13.9	24.8	24
	Water content (%):	48	48	48	48
Sunflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sunflower	Harvest Season:	Summer	Summer	Summer	Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5

III	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	4.0	3.5	10.0	4.0
	Water content (%):	12-13	12-13	12-13	12-13
	Yield marketable product (t ha^{-1} yr^{-1}):	1.3	1.0	2.5	1.3
	Water content (%)	12-13	12-13	12-13	12-13
	Yield straw (t ha^{-1} yr^{-1}):	2.2	2.0	6.0	2.2
	Water content (%):	12-13	12-13	12-13	12-13
Sorghum IV	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Sorghum IV	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum IV	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorghum IV	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	83	53	100	83
	Water content (%):	67	67	67	67
	Yield marketable product (t ha^{-1} yr^{-1}):	5.3	3.4	6.4	5.3
	Water content (%)	18.0	18.0	18.0	18.0
	Yield straw (t ha^{-1} yr^{-1}):	76.7	49.0	92.4	76.7
	Water content (%):	70	70	70	70
Red clover V	Tillage Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover V	Sowing Season:	Spring	Spring	Spring	Spring
	Amount kg ha^{-1}:	25	25	25	25
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover V	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.1	0.7	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Red clover V	Harvest Season:	Late summer/Fall	Late summer/Fall	Late summer/Fall	Late summer/Fall
	Combine harvester: h ha^{-1}:	0.7	0.7	0.5	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	3.1	3.0	3.5	3.4
	Water content (%):	70	70	70	70

	Continental	**Cropping system 4: Flax-Cereal (wheat)-Pea**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Flax I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax I	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax I	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	8.5	6.9	9.6	8.5
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.8	1.4	2.0	1.8
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	6.9	4.1	5.7	6.9
	Water content (%):	14.0	14.0	14.0	14.0
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	0	0	0	0
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.0	3.5	9.9	5.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	3.0	2.1	6.0	3.0
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.0	1.4	3.9	2.0
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.27	0.27	0.27
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99

Pea III	Harvest Season:		Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content	(%):	18/24	18/24	18/24	18/24

	Continental	**Cropping system 5: Maize-Sugar beet-Sorghum**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Maize I	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	200-100-80-0	100-50-40-0	200-100-80-0	100-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize I	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	36	21	40	36
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	4.3	2.5	7.3	4.3
	Water content (%)	25	25	25	25
	Yield straw (t ha^{-1} yr^{-1}):	23	13.9	24.8	24
	Water content (%):	48	48	48	48
Sugar beet II	Tillage Plough and disk harrow:	40-50 cm	20-25 cm	40-50 cm	20-25 cm
	h ha^{-1}:	3.8	2.1	2.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sugar beet II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount :	1 kg ha^{-1}	1 kg ha^{-1}	1 kg ha^{-1}	1 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sugar beet II	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-180-200-40	60-100-100-25	140-180-200-40	60-100-100-25
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	3.5	2.0	3.5	2.0
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Sugar beet II	Harvest Season:	Summer	Summer	Summer	Summer
	Beet harvester h ha^{-1}:	1.5	1.3	1.5	1.2
	MJ h^{-1}:	883.32	883.32	883.32	883.32
	Yield harvest (t ha^{-1} yr^{-1}):	136	115	149	136
	Water content (%):	75	75	75	75
	Yield marketable product (t ha^{-1} yr^{-1}):	78	66	92	78
	Water content (%)	75	75	75	75
	Yield straw (t ha^{-1} yr^{-1}):	58	49	61	58
	Water content (%):	75	75	75	75
Sorghum III	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Sorghum III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum III	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorgh	Harvest Season:	Autumn	Autumn	Autumn	Autumn

um III	Maize Chopper+Lorry	h ha^{-1}:	1.0	0.9	0.8	0.6
		MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	62	40	75	62
	Water content	(%):	67	67	67	67
	Seed Yield	(t ha^{-1} yr^{-1}):	3.4	2.2	4.1	3.4
	Water content	(%)	18.0	18.0	18.0	18.0
	Yield straw	(t ha^{-1} yr^{-1}):	49	31	59	49
	Water content	(%):	70	70	70	70

	Continental	**Cropping system 6: Rapeseed- Flax- Sunflower**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	0.6	1.2	0.6
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	8.2	3.6	12.9	8.2
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.7	1.2	4.4	2.7
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	5.2	2.3	8.1	5.2
	Water content (%):	15.0	15.0	15.0	15.0
Flax II	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax II	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax II	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	8.5	6.9	9.6	8.5
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.8	1.4	2.0	1.8
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	6.9	4.1	5.7	6.9
	Water content (%):	14.0	14.0	14.0	14.0
Sunflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sunflo	Harvest Season:	Summer	Summer	Summer	Summer

wer III	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	4.0	3.5	10.0	4.0
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.3	1.0	2.5	1.3
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	2.2	2.0	6.0	2.2
	Water content	(%):	12-13	12-13	12-13	12-13

	Continental	**Cropping system 7: Red clover-Rapeseed-Cereal (wheat)-Flax**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Red clover I	Tillage Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount kg ha^{-1}:	25	25	25	25
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.1	0.7	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Red clover I	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.7	0.7	0.5	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	3.1	3.0	3.5	3.4
	Water content (%):	70	70	70	70
Rapeseed II	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed II	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-80-70-0	50-40-40-0	100-80-70-0	50-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	0.6	1.2	0.6
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	8.2	3.6	12.9	8.2
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.7	1.2	4.4	2.7
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	5.2	2.3	8.1	5.2
	Water content (%):	15.0	15.0	15.0	15.0
Wheat III	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat III	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.0	3.5	9.9	5.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	3.0	2.1	6.0	3.0
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.0	1.4	3.9	2.0
	Water content (%):	20	20	20	20

Flax IV	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax IV	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax IV	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount ($N-P_2O_5-K_2O-CaO$) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax IV	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	8.5	6.9	9.6	8.5
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.8	1.4	2.0	1.8
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	6.9	4.1	5.7	6.9
	Water content (%):	14.0	14.0	14.0	14.0

	Atlantic Central	**Cropping system 1: Miscanthus**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Miscanthus I	Tillage Plough and disk harrow:	0-40 cm	0-20 cm	0-40 cm	0-20 cm
	h ha^{-1}:	2.95	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Miscanthus I	Sowing (transplant) Season:	Spring	Spring	Spring	Spring
	Amount:	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Miscanthus I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	80-40-40-40	40-15-15-15	80-40-40-40	40-15-15-15
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):				
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Miscanthus I	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	7.5	6.5	8.5	7.5
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	6.0	5.5	7.2	6.0
	Water content (%):	35	35	35	35
Miscanthus II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus II	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	15	13.0	17.0	15
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	12.5	11.0	14.5	12.5
	Water content (%):	35	35	35	35
Miscanthus III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus III	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	30.8	27.7	34	30.8
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	26	23.5	29	26
	Water content (%):	35	35	35	35

	Atlantic Central	**Cropping system 2: Poplar**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Poplar I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Poplar I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	10000	8000	10000	8000
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Poplar I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-40-160-200	30-5-20-50	100-40-160-200	30-5-20-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar II-III	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	7	6	10	7
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	6	5.1	8.5	6
	Water content (%):	50	50	50	50
Poplar III	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-0-0-0	30-0-0-0	100-0-0-0	30-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar IV-V	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	14	12	20	14
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	12	10.2	17	12.0
	Water content (%):	50	50	50	50
Poplar V	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-0-0-0	0-0-0-0	0-0-0-0	0-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99

	Atlantic Central	**Cropping system 3: Switchgrass**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Switch grass I	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Switch grass I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	5 kg ha^{-1}	5 kg ha^{-1}	11 kg ha^{-1}	5 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Switch grass I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	70-120-120-0	35-60-60-0	100-120-120-0	35-60-60-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Switch grass I	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize chopper+Lorry: h ha^{-1}:	1.2	1.0	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	17.6	11.8	22.5	17.6
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	15	10.0	19.0	15
	Water content (%):	15	15	15	15
Switch grass II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-0-0-0	-	30-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Switch grass II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize chopper+Lorry: h ha^{-1}:	1.2	1.0	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	17.6	11.8	22.5	17.6
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	15	10.0	19.0	15
	Water content (%):	15	15	15	15
Switch grass III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-0-0-0	-	30-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Switch grass III	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize chopper+Lorry: h ha^{-1}:	1.2	1.0	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	17.6	11.8	22.5	17.6
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	15	10.0	19.0	15
	Water content (%):	15	15	15	15

	Atlantic Central	**Cropping system 4: Sugar beet-Cereal (wheat)-Pea**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Sugar beet I	Tillage Plough and disk harrow:	40-50 cm	20-25 cm	40-50 cm	20-25 cm
	h ha^{-1}:	3.8	2.1	2.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sugar beet I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount :	1 kg ha^{-1}	1 kg ha^{-1}	1 kg ha^{-1}	1 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sugar beet I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-180-200-40	60-100-100-25	140-180-200-40	60-100-100-25
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	3.5	2.0	3.5	2.0
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Sugar beet I	Harvest Season:	Summer	Summer	Summer	Summer
	Beet harvester h ha^{-1}:	1.5	1.3	1.5	1.2
	MJ h^{-1}:	883.32	883.32	883.32	883.32
	Yield harvest (t ha^{-1} yr^{-1}):	140	108	153	140
	Water content (%):	75	75	75	75
	Yield marketable product (t ha^{-1} yr^{-1}):	80	62	92	80
	Water content (%)	75	75	75	75
	Yield straw (t ha^{-1} yr^{-1}):	60	46	61	60
	Water content (%):	75	75	75	75
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	16.0	14.0	17.0	16.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	6.4	4.7	7.5	6.4
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	6.5	7.0	7.1	6.5
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer

III	Combine harvester	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content	(%):	18/24	18/24	18/24	18/24

	Atlantic Central	**Cropping system 5: Rapeseed-Cereal (wheat)-Pea-Rapeseed**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.75	1.5	0.75
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	10	5.2	13.7	10
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	3.2	1.8	4.8	3.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	6.4	3.4	8.5	6.4
	Water content (%):	15.0	15.0	15.0	15.0
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	16.0	14.0	17.0	16.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	6.4	4.7	7.5	6.4
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	6.5	7.0	7.1	6.5
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99

Pea III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content (%):	18/24	18/24	18/24	18/24
	Yield marketable product (t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content (%)	18/24	18/24	18/24	18/24
	Yield straw (t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content (%):	18/24	18/24	18/24	18/24
Rapeseed IV	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed IV	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed IV	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-80-70-0	50-40-40-0	100-80-70-0	50-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.75	1.5	0.75
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed IV	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	10	5.2	13.7	10
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	3.2	1.8	4.8	3.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	6.4	3.4	8.5	6.4
	Water content (%):	15.0	15.0	15.0	15.0

	Atlantic Central	**Cropping system 6: Flax-Cereal (wheat)-Pea**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Flax I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax I	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax I	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.7	4.1	6.8	5.7
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.4	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.4	2.4	4.0	3.4
	Water content (%):	14.0	14.0	14.0	14.0
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	16.0	14.0	17.0	16.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	6.4	4.7	7.5	6.4
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	6.5	7.0	7.1	6.5
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5

		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content	(%):	18/24	18/24	18/24	18/24

	Atlantic Central	**Cropping system 7: Rapeseed-Flax-Red clover**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.75	1.5	0.75
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	10	5.2	13.7	10
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	3.2	1.8	4.8	3.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	6.4	3.4	8.5	6.4
	Water content (%):	15.0	15.0	15.0	15.0
Flax II	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax II	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax II	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.7	4.1	6.8	5.7
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.4	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.4	2.4	4.0	3.4
	Water content (%):	14.0	14.0	14.0	14.0
Red clover III	Tillage Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount kg ha^{-1}:	25	25	25	25
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.1	0.7	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Red clover III	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.7	0.7	0.5	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	3.1	3.0	3.5	3.4
	Water content (%):	70	70	70	70

	Atlantic North	**Cropping system 1: Willow**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Willow I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Willow I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	10000	8000	10000	8000
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Willow I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-120-180-100	30-60-90-50	120-120-180-100	30-60-90-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Willow II-III	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	8.0	6.0	10	8.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	6.8	5.1	8.5	6.8
	Water content (%):	50	50	50	50
Willow III	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-0-0-0	30-0-0-0	120-0-0-0	30-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Willow IV-V	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	16.0	12.0	20	16.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	13.5	10.0	17.0	13.5
	Water content (%):	50	50	50	50
Willow V	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-0-0-0	0-0-0-0	0-0-0-0	0-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99

	Atlantic North	**Cropping system 2: Poplar**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Poplar I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Poplar I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	10000	8000	10000	8000
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Poplar I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-40-160-200	30-5-20-50	100-40-160-200	30-5-20-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar II-III	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	7	6	10	7
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	6	5.1	8.5	6
	Water content (%):	50	50	50	50
Poplar III	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-0-0-0	30-5-20-50	100-0-0-0	30-5-20-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar IV-V	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	14.0	12	20.0	14
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	12.0	10.2	17.0	12.0
	Water content (%):	50	50	50	50
Poplar V	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-0-0-0	0-0-0-0	0-0-0-0	0-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99

	Atlantic North	**Cropping system 3: Miscanthus**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Miscanthus I	Tillage Plough and disk harrow:	0-40 cm	0-20 cm	0-40 cm	0-20 cm
	h ha^{-1}:	2.95	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Miscanthus I	Sowing (transplant) Season:	Spring	Spring	Spring	Spring
	Amount:	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Miscanthus I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	80-40-40-40	40-15-15-15	80-40-40-40	40-15-15-15
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Miscanthus I	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	7.0	6.0	10.0	7.0
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	6.0	5.1	8.5	6.0
	Water content (%):	35	35	35	35
Miscanthus II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus II	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	15.4	12.3	18.5	15.4
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	13	10.5	16	13
	Water content (%):	35	35	35	35
Miscanthus III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus III	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	15.4	12.3	18.5	15.4
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	13	10.5	16	13
	Water content (%):	35	35	35	35

	Atlantic North	**Cropping system 4: Switchgrass**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Switch grass I	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Switch grass I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	11 kg ha^{-1}	5 kg ha^{-1}	11 kg ha^{-1}	5 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Switch grass I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	70-120-120-0	35-60-60-0	100-120-120-0	35-60-60-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Switch grass I	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize chopper+Lorry h ha^{-1}:	1.2	1.0	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	11.8	8.2	16.5	11.8
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	10.0	7.0	14.0	10.0
	Water content (%):	15	15	15	15
Switch grass II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-0-0-0	-	30-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Switch grass II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize chopper+Lorry: h ha^{-1}:	1.2	1.0	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	11.8	8.2	16.5	11.8
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	10.0	7.0	14.0	10.0
	Water content (%):	15	15	15	15
Switch grass III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-0-0-0	-	30-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Switch grass III	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize chopper+Lorry h ha^{-1}:	1.2	1.0	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	11.8	8.2	16.5	11.8
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	10.0	7.0	14.0	10.0
	Water content (%):	15	15	15	15

	Atlantic North	**Cropping system 5: Rapeseed-Cereal (barley)-Flax**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.75	1.5	0.75
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	7.0	4.5	9.4	7.0
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.3	1.5	3.2	2.3
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	4.5	2.9	5.9	4.5
	Water content (%):	15.0	15.0	15.0	15.0
Barley II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Barley II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Barley II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-50-0	10-50-30-0	30-100-50-0	10-50-30-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Barley II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	14.0	12.0	16.5	14.0
	Water content (%):	17	17	17	17
	Yield marketable product (t ha^{-1} yr^{-1}):	6.1	5.0	7.2	6.1
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	5.9	5.2	6.9	5.9
	Water content (%):	20	20	20	20
Flax III	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax III	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax III	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5

		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	5.7	4.1	6.8	5.7
	Water content	(%):	20	20	20	20
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.2	0.9	1.4	1.2
	Water content	(%)	9.0	9.0	9.0	9.0
	Yield straw	(t ha^{-1} yr^{-1}):	3.4	2.4	4.0	3.4
	Water content	(%):	14.0	14.0	14.0	14.0

	Atlantic North	**Cropping system 6: Hemp-Cereal (barley)-Pea**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Hemp I	Tillage Plough and disk harrow:	35-40 cm	15-30 cm	35-40 cm	15-30 cm
	h ha^{-1}:	2.9	2.5	2.2	1.8
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Hemp I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	40 kg ha^{-1}	40 kg ha^{-1}	40 kg ha^{-1}	40 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Hemp I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-60-120-0	80-30-60-0	140-60-120-0	80-30-60-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Hemp I	Harvest Season:	Summer	Summer	Summer	Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	15.8	9.0	19.0	15.8
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	0.8	0.5	1.0	0.8
	Water content (%)	14.0	14.0	14.0	14.0
	Yield straw (t ha^{-1} yr^{-1}):	11.8	6.7	14.2	11.8
	Water content (%):	14.0	14.0	14.0	14.0
Barley II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Barley II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Barley II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-50-0	10-50-30-0	30-100-50-0	10-50-30-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Barley II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	14.0	12.0	16.5	14.0
	Water content (%):	17	17	17	17
	Yield marketable product (t ha^{-1} yr^{-1}):	6.1	5.0	7.2	6.1
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	5.9	5.2	6.9	5.9
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6

	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content	(%):	18/24	18/24	18/24	18/24

	Atlantic North	**Cropping system 7: Rapeseed-Pea-Wheat**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.75	1.5	0.75
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	7.0	4.5	9.4	7.0
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.3	1.5	3.2	2.3
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	4.5	2.9	5.9	4.5
	Water content (%):	15.0	15.0	15.0	15.0
Pea II	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea II	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content (%):	18/24	18/24	18/24	18/24
	Yield marketable product (t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content (%)	18/24	18/24	18/24	18/24
	Yield straw (t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content (%):	18/24	18/24	18/24	18/24
Wheat III	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat III	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer

	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	17.0	15.5	18.5	17.0
	Water content	(%):	16.0	16.0	16.0	16.0
	Yield marketable product	(t ha^{-1} yr^{-1}):	7.7	6.4	8.5	7.7
	Water content	(%)	13	13	13	13
	Yield straw	(t ha^{-1} yr^{-1}):	7.0	6.8	7.5	7.0
	Water content	(%):	20	20	20	20

	Atlantic North	**Cropping system 8: Rapeseed-Cereal (barley)-Pea-Rapeseed**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.75	1.5	0.75
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	7.0	4.5	9.4	7.0
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.3	1.5	3.2	2.3
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	4.5	2.9	5.9	4.5
	Water content (%):	15.0	15.0	15.0	15.0
Barley II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Barley II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Barley II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-50-0	10-50-30-0	30-100-50-0	10-50-30-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Barley II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	14.0	12.0	16.5	14.0
	Water content (%):	17	17	17	17
	Yield marketable product (t ha^{-1} yr^{-1}):	6.1	5.0	7.2	6.1
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	5.9	5.2	6.9	5.9
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5

		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content	(%):	18/24	18/24	18/24	18/24
Rapeseed IV	Tillage Plough and disk harrow:		0-30 cm	0-10 cm	0-30 cm	0-10 cm
		h ha^{-1}:	2.9	2.1	2.3	1.6
		MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed IV	Sowing	Season:	Autumn	Autumn	Autumn	Autumn
		Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill	h ha^{-1}:	0.4	0.4	0.2	0.2
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed IV	Crop practices					
	Fertilization:		Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		100-80-70-0	50-40-40-0	100-80-70-0	50-40-40-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.0	0.9	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):		1.5	0.75	1.5	0.75
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):		-	-	-	-
	Crop sprayer	h ha^{-1}:	0.5	0.5	0.3	0.3
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed IV	Harvest	Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	7.0	4.5	9.4	7.0
	Water content	(%):	15	15	15	15
	Yield marketable product	(t ha^{-1} yr^{-1}):	2.3	1.5	3.2	2.3
	Water content	(%)	9.0	9.0	9.0	9.0
	Yield straw	(t ha^{-1} yr^{-1}):	4.5	2.9	5.9	4.5
	Water content	(%):	15.0	15.0	15.0	15.0

	Atlantic North	**Cropping system 9: Flax-Wheat-Pea**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Flax I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax I	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Flax I	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.7	4.1	6.8	5.7
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.4	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.4	2.4	4.0	3.4
	Water content (%):	14.0	14.0	14.0	14.0
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	17.0	15.5	18.5	17.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	7.7	6.4	8.5	7.7
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	7.0	6.8	7.5	7.0
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer

III	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	9.6	6.0	12.0	9.6
	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.0	3.0	5.0	4.0
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	5.0	3.5	6.5	5.0
	Water content	(%):	18/24	18/24	18/24	18/24

	Atlantic North	**Cropping system 10: Rapeseed-Flax-Red clover**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	190-80-70-0	100-40-40-0	190-80-70-0	100-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.75	1.5	0.75
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	7.0	4.5	9.4	7.0
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.3	1.5	3.2	2.3
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	4.5	2.9	5.9	4.5
	Water content (%):	15.0	15.0	15.0	15.0
Flax II	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax II	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	0.5	0.5	0.3	0.3
	Crop sprayer h ha^{-1}:	218.99	218.99	218.99	218.99
	MJ h^{-1}:				
Flax II	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.7	4.1	6.8	5.7
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.4	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.4	2.4	4.0	3.4
	Water content (%):	14.0	14.0	14.0	14.0
Red clover III	Tillage Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount kg ha^{-1}:	25	25	25	25
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.1	0.7	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Red clover III	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.7	0.7	0.5	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	3.1	3.0	3.5	3.4
	Water content (%):	70	70	70	70

	Lusitanian	**Cropping system 1: Eucalyptus**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Eucalyptus I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Eucalyptus I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	5000	5000	5000	5000
	Planter h ha^{-1}:	2.3	2.3	1.9	1.9
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Eucalyptus I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	195-12-130-90	60-5-65-45	125-12-132-92	195-12-130-90
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Eucalyptus II-III	Harvest Season:	Winter	Winter	Winter	Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	12.0	8.0	17.0	12.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	10.5	6.8	14.5	10.5
	Water content (%):	50	50	50	50
Eucalyptus III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	70-0-0-0	-	70-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.6	-
	MJ h^{-1}:	218.99	-	218.99	-
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Eucalyptus IV-V	Harvest Season:	Winter	Winter	Winter	Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	24.0	16.0	34.0	24.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	20.4	13.5	29.0	20.4
	Water content (%):	50	50	50	50
Eucalyptus V	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	70-0-0-0	-	70-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.6	-
	MJ h^{-1}:	218.99	-	218.99	-
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99

	Lusitanian	**Cropping system 2: Poplar**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Poplar I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Poplar I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	10000	8000	10000	8000
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Poplar I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-20-80-200	30-5-20-50	100-20-80-200	30-5-20-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar II-III	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	14.0	10.0	18.0	14.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	12.0	8.5	15.0	12.0
	Water content (%):	50	50	50	50
Poplar III	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-0-0-0	30-0-0-0	100-0-0-0	30-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar IV-V	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	28.0	20.0	34.0	28.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	24.0	17.0	29.0	24.0
	Water content (%):	50	50	50	50
Poplar V	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-0-0-0	0-0-0-0	0-0-0-0	0-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99

	Lusitanian	**Cropping system 3: Miscanthus**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Miscanthus I	Tillage Plough and disk harrow:	0-40 cm	0-20 cm	0-40 cm	0-20 cm
	h ha^{-1}:	2.95	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Miscanthus I	Sowing (transplant) Season:	Spring	Spring	Spring	Spring
	Amount:	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Miscanthus I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	80-40-40-40	40-15-15-15	80-40-40-40	40-15-15-15
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):				
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Miscanthus I	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	13.0	10.0	16.0	13.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	11.0	8.5	13.5	11.0
	Water content (%):	50	50	50	50
Miscanthus II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus II	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	20.0	16	24	20.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	17.0	13.5	20.0	17.0
	Water content (%):	50	50	50	50
Miscanthus III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus III	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	40	32	48	40
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	34	27	41	34
	Water content (%):	50	50	50	50

	Lusitanian	**Cropping system 4: Pea-Cereal (wheat)-Rapeseed**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Pea I	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	3.0	8.0	6.0
	Water content (%):	18/24	18/24	18/24	18/24
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	1.0	3.5	2.6
	Water content (%)	18/24	18/24	18/24	18/24
	Yield straw (t ha^{-1} yr^{-1}):	2.5	1.5	3.4	2.5
	Water content (%):	18/24	18/24	18/24	18/24
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	3.8	8.5	6.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	1.5	3.7	2.6
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.5	1.6	3.6	2.5
	Water content (%):	20	20	20	20
Rapeseed III	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed III	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	160-80-70-0	80-40-40-0	160-80-70-0	80-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapes	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer

eed III	Combine harvester	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	5.9	2.8	8.0	5.9
	Water content	(%):	15	15	15	15
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.9	0.9	2.7	1.9
	Water content	(%)	9.0	9.0	9.0	9.0
	Yield straw	(t ha^{-1} yr^{-1}):	3.7	1.7	5.2	3.7
	Water content	(%):	15.0	15.0	15.0	15.0

	Lusitanian	**Cropping system 5: Rapeseed-Cereal (wheat)-Hemp-Cereal (barley)**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	160-80-70-0	80-40-40-0	160-80-70-0	80-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.9	2.8	8.0	5.9
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.9	0.9	2.7	1.9
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.7	1.7	5.2	3.7
	Water content (%):	15.0	15.0	15.0	15.0
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	3.8	8.5	6.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	1.5	3.7	2.6
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.5	1.6	3.6	2.5
	Water content (%):	20	20	20	20
Hemp III	Tillage Plough and disk harrow:	35-40 cm	15-30 cm	35-40 cm	15-30 cm
	h ha^{-1}:	2.9	2.5	2.2	1.8
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Hemp III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	40 kg ha^{-1}	40 kg ha^{-1}	40 kg ha^{-1}	40 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Hemp III	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-60-120-0	80-30-60-0	140-60-120-0	80-30-60-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.6	1.6	0.9	0.9
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	218.99	218.99	218.99	218.99
	Crop sprayer h ha^{-1}:				
	MJ h^{-1}:				
Hemp III	Harvest Season:	Summer	Summer	Summer	Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5

		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	19.0	14.0	21.0	19.0
	Water content	(%):	20	20	20	20
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.0	0.8	1.2	1.0
	Water content	(%)	14.0	14.0	14.0	14.0
	Yield straw	(t ha^{-1} yr^{-1}):	14.2	10.0	11.5	14.2
	Water content	(%):	14.0	14.0	14.0	14.0
Barley IV	Tillage Plough and disk harrow:		0-25 cm	No tillage	0-25 cm	No tillage
		h ha^{-1}:	2.1		1.6	
		MJ h^{-1}:	883.32		883.32	
Barley IV	Sowing	Season:	Autumn	Autumn	Autumn	Autumn
		Amount:	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}	150 kg ha^{-1}
	Seed drill	h ha^{-1}:	0.4	0.5	0.2	0.3
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Barley IV	Crop practices					
	Fertilization:		Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		30-100-50-0	10-50-30-0	30-100-50-0	10-50-30-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.0	0.9	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):		0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):		-	-	-	-
	Crop sprayer	h ha^{-1}:	0.5	0.5	0.3	0.3
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Barley IV	Harvest	Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester	h ha^{-1}:	0.8	0.7	0.6	0.8
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	9.0	3.8	14.0	9.0
	Water content	(%):	17	17	17	17
	Yield marketable product	(t ha^{-1} yr^{-1}):	3.4	1.6	6.1	3.4
	Water content	(%)	13	13	13	13
	Yield straw	(t ha^{-1} yr^{-1}):	4.2	1.7	5.9	4.2
	Water content	(%):	20	20	20	20

	Lusitanian	**Cropping system 6a: Wheat-Maize-Sunflower-Sorghum-Red clover**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Wheat I	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	3.8	8.5	6.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	1.5	3.7	2.6
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.5	1.6	3.6	2.5
	Water content (%):	20	20	20	20
Maize II	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	200-100-80-0	100-50-40-0	200-100-80-0	100-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize chopper+lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	29	12.0	56	29
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	5.1	3.9	6.8	5.1
	Water content (%)	25	25	25	25
	Yield straw (t ha^{-1} yr^{-1}):	17.9	6.1	37.0	17.9
	Water content (%):	48	48	48	48
Sunflower III	Tillage Plough and disk harrow:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sunflower	Harvest Season:	Summer	Summer	Summer	Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5

III	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	4.0	3.5	8.0	4.0
	Water content (%):	12-13	12-13	12-13	12-13
	Yield marketable product (t ha^{-1} yr^{-1}):	1.5	1.0	2.4	1.5
	Water content (%)	12-13	12-13	12-13	12-13
	Yield straw (t ha^{-1} yr^{-1}):	1.9	1.8	4.2	1.9
	Water content (%):	12-13	12-13	12-13	12-13
Sorghum IV	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Sorghum IV	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum IV	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorghum IV	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	75	51	95	75
	Water content (%):	67	67	67	67
	Yield marketable product (t ha^{-1} yr^{-1}):	4.1	2.8	5.2	4.1
	Water content (%)	18.0	18.0	18.0	18.0
	Yield straw t ha^{-1} yr^{-1}):	59	40	75	59
	Water content (%):	70	70	70	70
Red clover V	Tillage Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover V	Sowing Season:	Spring	Spring	Spring	Spring
	Amount kg ha^{-1}:	25	25	25	25
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover V	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.1	0.7	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Red clover V	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.7	0.7	0.5	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	3.1	3.0	3.5	3.4
	Water content (%):	70	70	70	70

	Lusitanian	**Cropping system 6b: Pea-Maize-Sunflower-Sorghum- Red clover**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Pea I	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	3.0	8.0	6.0
	Water content (%):	18/24	18/24	18/24	18/24
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	1.0	3.5	2.6
	Water content (%)	18/24	18/24	18/24	18/24
	Yield straw (t ha^{-1} yr^{-1}):	2.5	1.5	3.4	2.5
	Water content (%):	18/24	18/24	18/24	18/24
Maize II	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-100-80-0	50-50-40-0	100-100-80-0	50-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	29	12.0	56	29
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	5.1	3.9	6.8	5.1
	Water content (%)	25	25	25	25
	Yield straw (t ha^{-1} yr^{-1}):	17.9	6.1	37.0	17.9
	Water content (%):	48	48	48	48
Sunflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sunflo	Harvest Season:	Summer	Summer	Summer	Summer

wer III	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	4.0	3.5	8.0	4.0
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.5	1.0	2.4	1.5
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	1.9	1.8	4.2	1.9
	Water content	(%):	12-13	12-13	12-13	12-13
Sorghum IV	Tillage Plough and disk harrow:		0-25 cm	No tillage	0-25 cm	No tillage
		h ha^{-1}:	2.1		1.6	
		MJ h^{-1}:	883.32		883.32	
Sorghum IV	Sowing	Season:	Spring	Spring	Spring	Spring
		Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill	h ha^{-1}:	0.4	0.5	0.2	0.3
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum IV	Crop practices					
	Fertilization:		Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.0	0.9	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):		1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):		-	-	-	-
	Crop sprayer	h ha^{-1}:	0.5	0.5	0.3	0.3
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorghum IV	Harvest	Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry	h ha^{-1}:	1.0	0.9	0.8	0.6
		MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	75	51	95	75
	Water content	(%):	67	67	67	67
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.1	2.8	5.2	4.1
	Water content	(%)	18.0	18.0	18.0	18.0
	Yield straw	t ha^{-1} yr^{-1}):	59	40	75	59
	Water content	(%):	70	70	70	70
Red clover V	Tillage	Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
		h ha^{-1}:	2.5	2.0	1.9	1.6
		MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover V	Sowing	Season:	Spring	Spring	Spring	Spring
		Amount (kg ha^{-1}):	25	25	25	25
	Seed drill	h ha^{-1}:	0.4	0.4	0.2	0.2
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover V	Crop practices					
	Fertilization:		Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.1	0.7	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Red clover V	Harvest	Season:	Late summer/autumn	Late summer/autumn	Late summer/autumn	Late summer/autumn
	Combine harvester:	h ha^{-1}:	0.7	0.7	0.5	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):		3.1	3.0	3.5	3.4
	Water content (%):		70	70	70	70

	Lusitanian	**Cropping system 7: Rapeseed-Cereal (wheat)-Pea-Rapeseed**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount(kg ha^{-1}):	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	160-80-70-0	80-40-40-0	160-80-70-0	80-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.9	2.8	8.0	5.9
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.9	0.9	2.7	1.9
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.7	1.7	5.2	3.7
	Water content (%):	15.0	15.0	15.0	15.0
Wheat II	Tillage Cultivator:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount(kg ha^{-1}):	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	3.8	8.5	6.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	1.5	3.7	2.6
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	2.5	1.6	3.6	2.5
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	30-100-0-0	0-70-0-0	30-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer

III	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	6.0	3.0	8.0	6.0
	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	2.6	1.0	3.5	2.6
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	2.5	1.5	3.4	2.5
	Water content	(%):	18/24	18/24	18/24	18/24
Rapeseed IV	Tillage	Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
		h ha^{-1}:	2.9	2.1	2.3	1.6
		MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed IV	Sowing	Season:	Autumn	Autumn	Autumn	Autumn
		Amount(kg ha^{-1}):	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill	h ha^{-1}:	0.4	0.4	0.2	0.2
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed IV	Crop practices					
	Fertilization:		Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		80-80-70-0	40-40-40-0	80-80-70-0	40-40-40-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.0	0.9	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):		0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):		-	-	-	-
	Crop sprayer	h ha^{-1}:	0.5	0.5	0.3	0.3
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed IV	Harvest	Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	5.9	2.8	8.0	5.9
	Water content	(%):	15	15	15	15
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.9	0.9	2.7	1.9
	Water content	(%)	9.0	9.0	9.0	9.0
	Yield straw	(t ha^{-1} yr^{-1}):	3.7	1.7	5.2	3.7
	Water content	(%):	15.0	15.0	15.0	15.0

	Lusitanian	**Cropping system 8: Maize-Sugar beet-Sorghum**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Maize I	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	200-100-80-0	100-50-40-0	200-100-80-0	100-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize I	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	29	12.0	56	29
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	5.1	3.9	6.8	5.1
	Water content (%)	25	25	25	25
	Yield straw t ha^{-1} yr^{-1}):	17.9	6.1	37.0	17.9
	Water content (%):	48	48	48	48
Sugar beet II	Tillage Plough and disk harrow:	40-50 cm	20-25 cm	40-50 cm	20-25 cm
	h ha^{-1}:	3.8	2.1	2.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sugar beet II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount :	1 kg ha^{-1}	1 kg ha^{-1}	1 kg ha^{-1}	1 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sugar beet II	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-180-200-40	60-100-100-25	140-180-200-40	60-100-100-25
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	3.5	2.0	3.5	2.0
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Sugar beet II	Harvest Season:	Summer	Summer	Summer	Summer
	Beet harvester h ha^{-1}:	1.5	1.3	1.5	1.2
	MJ h^{-1}:	883.32	883.32	883.32	883.32
	Yield harvest (t ha^{-1} yr^{-1}):	136	115	149	136
	Water content (%):	75	75	75	75
	Yield marketable product (t ha^{-1} yr^{-1}):	78	66	92	78
	Water content (%)	75	75	75	75
	Yield straw (t ha^{-1} yr^{-1}):	58	49	61	58
	Water content (%):	75	75	75	75
Sorghum III	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Sorghum III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum III	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorgh	Harvest Season:	Autumn	Autumn	Autumn	Autumn

um III	Maize Chopper+Lorry	h ha^{-1}:	1.0	0.9	0.8	0.6
		MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	75	51	95	75
	Water content	(%):	67	67	67	67
	Yield marketable product	(t ha^{-1} yr^{-1}):	4.1	2.8	5.2	4.1
	Water content	(%)	18.0	18.0	18.0	18.0
	Yield straw	t ha^{-1} yr^{-1}):	59	40	75	59
	Water content	(%):	70	70	70	70

	Lusitanian	**Cropping system 9: Soybean-Ethiopian mustard-Sunflower**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Soybean I	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Soybean I	Sowing Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Amount(kg ha^{-1}):	80	80	80	80
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Soybean I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	60-60-70-0	30-30-35-0	60-60-70-0	30-30-35-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.35	0.20	0.35	0.20
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Soybean I	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.5	4.0	7.5	5.5
	Water content (%):	12-14	12-14	12-14	12-14
	Yield marketable product (t ha^{-1} yr^{-1}):	2.3	1.6	3.0	2.3
	Water content (%)	12-14	12-14	12-14	12-14
	Yield straw (t ha^{-1} yr^{-1}):	2.4	1.8	3.3	2.4
	Water content (%):	12-14	12-14	12-14	12-14
Ethiopian mustard II	Tillage Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Ethiopian mustard II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount(kg ha^{-1}):	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Ethiopian mustard II	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	80-80-70-0	40-40-40-0	80-80-70-0	40-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Ethiopian mustard II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.9	2.8	8.0	5.9
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.9	0.9	2.7	1.9
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.7	1.7	5.2	3.7
	Water content (%):	15.0	15.0	15.0	15.0
Sunflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99

Sunflower III	Harvest Season:		Summer	Summer	Summer	Summer
	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	4.0	3.5	8.0	4.0
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	1.5	1.0	2.4	1.5
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	1.9	1.8	4.2	1.9
	Water content	(%):	12-13	12-13	12-13	12-13

	Lusitanian	**Cropping system 10: Rapeseed-Flax-Red clover**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount(kg ha^{-1}):	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	160-80-70-0	80-40-40-0	160-80-70-0	80-40-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.9	2.8	8.0	5.9
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.9	0.9	2.7	1.9
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.7	1.7	5.2	3.7
	Water content (%):	15.0	15.0	15.0	15.0
Flax II	Tillage Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax II	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	0.5	0.5	0.3	0.3
	Crop sprayer h ha^{-1}:	218.99	218.99	218.99	218.99
	MJ h^{-1}:				
Flax II	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.7	4.1	6.8	5.7
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.4	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.4	2.4	4.0	3.4
	Water content (%):	14.0	14.0	14.0	14.0
Red clover III	Tillage Disk harrow:	0-30 cm	0-15 cm	0-30 cm	0-15 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Red clover III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (kg ha^{-1}):	25	25	25	25
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Red clover III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-40-0-0	0-20-0-0	0-40-0-0	0-20-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.1	0.7	0.7
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Red clover III	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.7	0.7	0.5	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	3.1	3.0	3.5	3.4
	Water content (%):	70	70	70	70

	Mediterranean North	**Cropping system 1: Poplar**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Poplar I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Poplar I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	10000	8000	10000	8000
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Poplar I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-40-160-200	30-5-20-50	100-20-80-200	30-5-20-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar II-III	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	14.0	10.0	18.0	14.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	12.0	8.5	15.0	12.0
	Water content (%):	50	50	50	50
Poplar III	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-0-0-0	30-5-20-50	100-0-0-0	30-5-20-50
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Poplar IV-V	Harvest Season:	Late Winter	Late Winter	Late Winter	Late Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	28.0	20.0	34.0	28.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	24.0	17.0	29.0	24.0
	Water content (%):	50	50	50	50
Poplar V	Crop practices				
	Fertilization:	Top dressing	Top dressing	Top dressing	Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-0-0-0	0-0-0-0	0-0-0-0	0-0-0-0
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99

	Mediterranean North	**Cropping system 2: Miscanthus**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Miscanthus I	Tillage Plough and disk harrow:	0-40 cm	0-20 cm	0-40 cm	0-20 cm
	h ha^{-1}:	2.95	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Miscanthus I	Sowing (transplant) Season:	Spring	Spring	Spring	Spring
	Amount:	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Miscanthus I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	80-40-40-40	40-15-15-15	80-40-40-40	40-15-15-15
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):				
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Miscanthus I	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	13.0	11.0	16.0	13.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	11.0	9.0	13.5	11.0
	Water content (%):	50	50	50	50
Miscanthus II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus II	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	20.0	16.0	24.0	20.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	17.0	13.5	20.5	17.0
	Water content (%):	50	50	50	50
Miscanthus III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.7	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Miscanthus III	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	40	32	48	40
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	34	27	41	34
	Water content (%):	50	50	50	50

	Mediterranean North	**Cropping system 3: Giant reed**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Giant reed I	Tillage Plough and disk harrow:	0-40 cm	0-20 cm	0-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Giant reed I	Sowing (transplant) Season:	Spring	Spring	Spring	Spring
	Amount:	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Giant reed I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-120-150-0	50-60-75-0	100-120-150-0	50-60-75-0
	Fertilizer distributer h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Giant reed I	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	5.0	9.0	6.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	4.5	3.8	6.7	4.5
	Water content (%):	50	50	50	50
Giant reed II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-120-0-0	-	100-120-0-0	-
	Fertilizer distributer h ha^{-1}:	1.0	-	0.8	-
	MJ h^{-1}:	218.99	-	218.993	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Giant reed II	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	1.0
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	30	25	38	30
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	22.5	18.5	28.5	22.5
	Water content (%):	50	50	50	50
Giant reed III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-120-0-0	-	100-120-0-0	-
	Fertilizer distributer h ha^{-1}:	1.0	-	0.8	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
Giant reed III	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	1.0
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	60	50	76	60
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	51	42.5	64.5	51
	Water content (%):	50	50	50	50

	Mediterranean North	**Cropping system 4a: Cereal (wheat)-Maize-Sunflower-Sorghum-fallow**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Wheat I	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	9.0	5.0	15.0	9.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	4.1	2.0	6.8	4.1
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	3.7	2.2	6.2	3.7
	Water content (%):	20	20	20	20
Maize II	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	200-100-80-0	100-50-40-0	200-100-80-0	100-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	34	12.0	51	34
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	5.1	3.9	6.8	5.1
	Water content (%)	25	25	25	25
	Yield straw (t ha^{-1} yr^{-1}):	21.6	6.1	33.1	21.6
	Water content (%):	48	48	48	48
Sunflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sunflo	Harvest Season:	Summer	Summer	Summer	Summer

wer III	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	8.8	6.8	10.3	8.8
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	3.0	2.2	3.5	3.0
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	5.8	4.5	6.8	5.8
	Water content	(%):	12-13	12-13	12-13	12-13
Sorgh um IV	Tillage Plough and disk harrow:		0-25 cm	No tillage	0-25 cm	No tillage
		h ha^{-1}:	2.1		1.6	
		MJ h^{-1}:	883.32		883.32	
Sorgh um IV	Sowing	Season:	Spring	Spring	Spring	Spring
		Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill	h ha^{-1}:	0.4	0.5	0.2	0.3
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorgh um IV	Crop practices					
	Fertilization:		Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.0	0.9	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):		1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):		-	-	-	-
	Crop sprayer	h ha^{-1}:	0.5	0.5	0.3	0.3
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorgh um IV	Harvest	Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry	h ha^{-1}:	1.0	0.9	0.8	0.6
		MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	83	51	100	83
	Water content	(%):	67	67	67	67
	Yield marketable product	(t ha^{-1} yr^{-1}):	5.3	3.3	6.4	5.3
	Water content	(%)	18.0	18.0	18.0	18.0
	Yield straw	(t ha^{-1} yr^{-1}):	76.7	47.1	92.4	76.7
	Water content	(%):	70	70	70	70

	Mediterranean North	**Cropping system 4b: Legume (Pea)-Maize-Sunflower-Sorghum-fallow**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Pea I	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-100-0-0	0-70-0-0	0-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	3.0	8.0	6.0
	Water content (%):	18/24	18/24	18/24	18/24
	Yield marketable product (t ha^{-1} yr^{-1}):	2.1	1.0	3.5	2.1
	Water content (%)	18/24	18/24	18/24	18/24
	Yield straw (t ha^{-1} yr^{-1}):	2.5	1.5	3.4	2.5
	Water content (%):	18/24	18/24	18/24	18/24
Maize II	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	200-100-80-0	100-50-40-0	200-100-80-0	100-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	34	12.0	51	34
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	5.1	3.9	6.8	5.1
	Water content (%)	25	25	25	25
	Yield straw (t ha^{-1} yr^{-1}):	21.6	6.1	33.1	21.6
	Water content (%):	48	48	48	48
Sunflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sunflower	Harvest Season:	Summer	Summer	Summer	Summer

III	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	8.8	6.8	10.3	8.8
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	3.0	2.2	3.5	3.0
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	5.8	4.5	6.8	5.8
	Water content	(%):	12-13	12-13	12-13	12-13
Sorghum IV	Tillage Plough and disk harrow:		0-25 cm	No tillage	0-25 cm	No tillage
		h ha^{-1}:	2.1		1.6	
		MJ h^{-1}:	883.32		883.32	
Sorghum IV	Sowing	Season:	Spring	Spring	Spring	Spring
		Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill	h ha^{-1}:	0.4	0.5	0.2	0.3
		MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum IV	Crop practices					
	Fertilization:		Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:		110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer	h ha^{-1}:	1.1	1.0	0.9	0.7
		MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):		1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):		-	-	-	-
	Crop sprayer	h ha^{-1}:	0.5	0.5	0.3	0.3
		MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorghum IV	Harvest	Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry	h ha^{-1}:	1.0	0.9	0.8	0.6
		MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	83	51	100	83
	Water content	(%):	67	67	67	67
	Seed Yield	(t ha^{-1} yr^{-1}):	4.5	2.8	5.5	4.5
	Water content	(%)	18.0	18.0	18.0	18.0
	Yield straw	(t ha^{-1} yr^{-1}):	65.1	40	78	65
	Water content	(%):	70	70	70	70

	Mediterranean North	**Cropping system 5: Flax-Cereal (wheat)-Pea**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Flax I	Tillage Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax I	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	0.5	0.5	0.3	0.3
	Crop sprayer h ha^{-1}:	218.99	218.99	218.99	218.99
	MJ h^{-1}:				
Flax I	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.9	4.4	7.2	5.9
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.5	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	3.1	4.3	3.5
	Water content (%):	14.0	14.0	14.0	14.0
Wheat II	Tillage Cultivator:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount(kg ha^{-1}):	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	50-65-0	100-140-0-0	50-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.15	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.0	5.0	15.0	9.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	4.1	2.0	6.8	4.1
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	3.7	2.2	6.2	3.7
	Water content (%):	20	20	20	20
Pea III	Tillage Cultivator:	0-25 cm	0-15cm	0-25 cm	0-15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Pea III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Pea III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-100-0-0	0-70-0-0	0-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Pea	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer

III	Combine harvester	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	6.0	3.0	8.0	6.0
	Water content	(%):	18/24	18/24	18/24	18/24
	Yield marketable product	(t ha^{-1} yr^{-1}):	2.1	1.0	3.5	2.1
	Water content	(%)	18/24	18/24	18/24	18/24
	Yield straw	(t ha^{-1} yr^{-1}):	2.5	1.5	3.4	2.5
	Water content	(%):	18/24	18/24	18/24	18/24

	Mediterranean North	**Cropping system 6: Maize-Sugar beet-Sorghum**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Maize I	Tillage Plough and disk harrow:	30-40 cm	0-20 cm	30-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Maize I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}	25 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Maize I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	200-100-80-0	100-50-40-0	200-100-80-0	100-50-40-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	2	1.5	2	1.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Maize I	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	34	12.0	51	34
	Water content (%):	44	44	44	44
	Yield grain (t ha^{-1} yr^{-1}):	5.1	3.9	6.8	5.1
	Water content (%)	25	25	25	25
	Yield straw (t ha^{-1} yr^{-1}):	21.6	6.1	33.1	21.6
	Water content (%):	48	48	48	48
Sugar beet II	Tillage Plough and disk harrow:	40-50 cm	20-25 cm	40-50 cm	20-25 cm
	h ha^{-1}:	3.8	2.1	2.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sugar beet II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount :	1 kg ha^{-1}	1 kg ha^{-1}	1 kg ha^{-1}	1 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sugar beet II	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-180-200-40	60-100-100-25	140-180-200-40	60-100-100-25
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	3.5	2.0	3.5	2.0
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Sugar beet II	Harvest Season:	Summer	Summer	Summer	Summer
	Beet harvester h ha^{-1}:	1.5	1.3	1.5	1.2
	MJ h^{-1}:	883.32	883.32	883.32	883.32
	Yield harvest (t ha^{-1} yr^{-1}):	136	115	149	136
	Water content (%):	75	75	75	75
	Yield marketable product (t ha^{-1} yr^{-1}):	78	66	92	78
	Water content (%)	75	75	75	75
	Yield straw (t ha^{-1} yr^{-1}):	58	49	61	58
	Water content (%):	75	75	75	75
Sorghum III	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Sorghum III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum III	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorgh	Harvest Season:	Autumn	Autumn	Autumn	Autumn

um III	Maize Chopper+Lorry	h ha^{-1}:	1.0	0.9	0.8	0.6
		MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	83	51	100	83
	Water content	(%):	67	67	67	67
	Seed Yield	(t ha^{-1} yr^{-1}):	4.5	2.8	5.5	4.5
	Water content	(%)	18.0	18.0	18.0	18.0
	Yield straw	(t ha^{-1} yr^{-1}):	65.1	40	78	65
	Water content	(%):	70	70	70	70

	Mediterranean North	**Cropping system 7: Soybean-Ethiopian mustard-Sunflower**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Soybean I	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Soybean I	Sowing Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Amount(kg ha^{-1}):	80	80	80	80
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Soybean I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	60-60-70-0	30-30-35-0	60-60-70-0	30-30-35-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.35	0.20	0.35	0.20
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Soybean I	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.8	4.2	7.8	5.8
	Water content (%):	12-14	12-14	12-14	12-14
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	1.8	3.2	2.6
	Water content (%)	12-14	12-14	12-14	12-14
	Yield straw (t ha^{-1} yr^{-1}):	2.7	1.9	3.4	2.7
	Water content (%):	12-14	12-14	12-14	12-14
Ethiopian mustard II	Tillage Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Ethiopian mustard II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount(kg ha^{-1}):	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Ethiopian mustard II	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	70-80-70-0	40-40-35-0	70-80-70-0	40-40-35-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Ethiopian mustard II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.9	2.8	8.0	5.9
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	1.9	0.9	2.7	1.9
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.7	1.7	5.2	3.7
	Water content (%):	15.0	15.0	15.0	15.0
Sunflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Sunflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	6	5	6	5
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sunflower III	Crop practices				
	Fertilization:	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing	Sow.+Top dressing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-90-200-0	80-50-100-0	140-90-200-0	80-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.8	0.5	0.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99

Sunflower III	Harvest Season:		Summer	Summer	Summer	Summer
	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	8.8	6.8	10.3	8.8
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	3.0	2.2	3.5	3.0
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	5.8	4.5	6.8	5.8
	Water content	(%):	12-13	12-13	12-13	12-13

	Mediterranean North	**Cropping system 8: Rapeseed-Flax-Safflower**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Rapeseed I	Tillage Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Rapeseed I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount(kg ha^{-1}):	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Rapeseed I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-80-70-0	80-40-35-0	140-80-70-0	80-40-35-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Rapeseed I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.4	3.3	8.8	6.4
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.3	1.4	3.2	2.3
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.3	1.5	4.2	3.3
	Water content (%):	15.0	15.0	15.0	15.0
Flax II	Tillage Cultivator:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax II	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax II	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	0.5	0.5	0.3	0.3
	Crop sprayer h ha^{-1}:	218.99	218.99	218.99	218.99
	MJ h^{-1}:				
Flax II	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.9	4.4	7.2	5.9
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.5	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	3.1	4.3	3.5
	Water content (%):	14.0	14.0	14.0	14.0
Safflower III	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Safflower III	Sowing Season:	Spring	Spring	Spring	Spring
	Amount(kg ha^{-1}):	25	25	25	25
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Safflower III	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-70-60-0	50-35-30-0	100-70-60-0	50-35-30-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.8	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	1.0	1.5	1.0
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Safflower	Harvest Season:	Summer	Summer	Summer	Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5

III		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	4.9	3.8	6.3	4.9
	Water content	(%):	12-13	12-13	12-13	12-13
	Yield marketable product	(t ha^{-1} yr^{-1}):	2.0	1.5	2.5	2.0
	Water content	(%)	12-13	12-13	12-13	12-13
	Yield straw	(t ha^{-1} yr^{-1}):	2.2	1.7	2.8	2.2
	Water content	(%):	12-13	12-13	12-13	12-13

	Mediterranean North	**Cropping system 9: Sorghum-Soybean-Cereal (wheat)-Kenaf**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Sorghum I	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Sorghum I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum I	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	110-100-60-0	80-75-20-0	110-100-60-0	80-75-20-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.8	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Sorghum I	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	83	51	100	83
	Water content (%):	67	67	67	67
	Seed Yield (t ha^{-1} yr^{-1}):	4.5	2.8	5.5	4.5
	Water content (%)	18.0	18.0	18.0	18.0
	Yield straw (t ha^{-1} yr^{-1}):	65.1	40	78	65
	Water content (%):	70	70	70	70
Soybean II	Tillage Cultivator:	25-40 cm	15-25 cm	25-40 cm	15-25 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Soybean II	Sowing Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Amount(kg ha^{-1}):	80	80	80	80
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Soybean II	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	60-60-70-0	30-30-35-0	60-60-70-0	30-30-35-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.35	0.20	0.35	0.20
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Soybean II	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.8	4.2	7.8	5.8
	Water content (%):	12-14	12-14	12-14	12-14
	Yield marketable product (t ha^{-1} yr^{-1}):	2.6	1.8	3.2	2.6
	Water content (%)	12-14	12-14	12-14	12-14
	Yield straw (t ha^{-1} yr^{-1}):	2.7	1.9	3.4	2.7
	Water content (%):	12-14	12-14	12-14	12-14
Wheat III	Tillage Cultivator:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount(kg ha^{-1}):	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat III	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-140-0-0	30-65-0	50-140-0-0	30-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99

Wheat III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	9.0	5.0	15.0	9.0
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	4.1	2.0	6.8	4.1
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	3.7	2.2	6.2	3.7
	Water content (%):	20	20	20	20
Kenaf IV	Tillage Plough and disk harrow:	35-40 cm	15-30 cm	35-40 cm	15-30 cm
	h ha^{-1}:	2.9	2.5	2.2	1.8
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Kenaf IV	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	40 kg ha^{-1}	40 kg ha^{-1}	40 kg ha^{-1}	40 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Kenaf IV	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-80-150-70	50-40-80-35	100-80-150-70	50-40-80-35
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Mechanical weed control h ha^{-1}:	1.6	1.6	0.9	0.9
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Kenaf IV	Harvest Season:	Summer	Summer	Summer	Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	18.0	8.0	24.0	18.0
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	13.5	6.0	18.0	13.5
	Water content (%):	14.0	14.0	14.0	14.0

	Mediterranean South	**Cropping system 1: Giant reed**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Giant reed I	Tillage Plough and disk harrow:	0-40 cm	0-20 cm	0-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Giant reed I	Sowing (transplant) Season:	Spring	Spring	Spring	Spring
	Amount:	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}	10000 rhiz. ha^{-1}
	Planter h ha^{-1}:	2.9	2.9	2.2	2.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Giant reed I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-120-150-0	50-60-75-0	100-120-150-0	50-60-75-0
	Fertilizer distributer h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.2	1.2	1.2	1.2
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Irrigation (m^3 $ha^{-1}yr^{-1}$):	5000	1000	5000	1000
	Irrigation system:	Sprinkler	Sprinkler	Sprinkler	Sprinkler
	Irrigation pump type:	Diesel	Diesel	Diesel	Diesel
	Delivery high (m):	15	15	15	15
	Distance (m):	100	100	100	100
	MJ h^{-1}:	16500	3300	16500	3300
Giant reed I	Harvest Season:	Winter/Spring	Winter/Spring	Winter/Spring	Winter/Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	6.0	4.0	9.0	5.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	4.5	3.0	6.7	3.7
	Water content (%):	50	50	50	50
Giant reed II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-120-0-0	-	100-120-0-0	-
	Fertilizer distributer h ha^{-1}:	1.0	-	0.8	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
	Irrigation (m^3 $ha^{-1}yr^{-1}$):	5000	-	5000	-
	Irrigation system:	Sprinkler	-	Sprinkler	-
	Irrigation pump type:	Diesel	-	Diesel	-
	Delivery high (m):	15	-	15	-
	Distance (m):	100	-	100	-
	MJ h^{-1}:	16506	-	16506	-
Giant reed II	Harvest Season:	Winter/Spring	Winter/Spring	Winter/Spring	Winter/Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	1.0
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	30	20	38	25
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	22.5	15	28.5	18.5
	Water content (%):	50	50	50	50
Giant reed III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-120-0-0	-	100-120-0-0	-
	Fertilizer distributer h ha^{-1}:	1.0	-	0.8	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	-	-	-	-
	MJ h^{-1}:	-	-	-	-
	Irrigation (m^3 $ha^{-1}yr^{-1}$):	5000	-	5000	-
	Irrigation system:	Sprinkler	-	Sprinkler	-
	Irrigation pump type:	Diesel/electric	-	Diesel/electric	-
	Delivery high (m):	15	-	15	-
	Distance (m):	100	-	100	-
	MJ h^{-1}:	16506	-	16506	-
Giant reed	Harvest Season:	Spring	Spring	Spring	Spring
	Maize chopper+Lorry h ha^{-1}:	1.2	1.2	1.0	1.0

III		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest	(t ha^{-1} yr^{-1}):	60	40	76	50
	Water content	(%):	50	50	50	50
	Yield marketable product	(t ha^{-1} yr^{-1}):	51	30	64.5	37.5
	Water content	(%):	50	50	50	50

	Mediterranean South	**Cropping system 2: Cardoon**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Cardoon I	Tillage Plough and disk harrow:	0-40 cm	0-20 cm	0-40 cm	0-20 cm
	h ha^{-1}:	2.9	2.1	2.2	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Cardoon I	Sowing Season:	Autumn/Spring	Autumn/Spring	Autumn/Spring	Autumn/Spring
	Amount(kg ha^{-1}):	3 kg ha^{-1}	3 kg ha^{-1}	2/3 kg ha^{-1}	2/3 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Cardoon I	Crop practices				
	Fertilization:	Sowing+Top dress.	Sowing	Sowing+Top dress.	Sowing
	Amount ($N-P_2O_5-K_2O-CaO$) kg ha^{-1}:	100-100-200-0	50-50-100-0	100-100-200-0	50-50-100-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.8	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.6	1.6	1.6	1.6
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Cardoon I	Harvest Season:	Summer	Summer	Summer	Summer
	Maize chopper+Lorry h ha^{-1}:	1.0	1.0	0.8	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	10.7	9.5	13.0	10.7
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	8.0	7.1	9.8	8.0
	Water content (%):	35	35	35	35
Cardoon II	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount ($N-P_2O_5-K_2O-CaO$) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	1.1	-	0.8	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.9	1.9	1.9	1.9
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Cardoon II	Harvest Season:	Summer	Summer	Summer	Summer
	Maize chopper+Lorry h ha^{-1}:	1.0	1.0	0.8	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	19.0	15.5	22.0	19.0
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	14.5	11.5	16.5	14.5
	Water content (%):	35	35	35	35
Cardoon III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount ($N-P_2O_5-K_2O-CaO$) kg ha^{-1}:	50-0-0-0	-	50-0-0-0	-
	Fertilizer distributer h ha^{-1}:	1.1	-	1.1	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.6	1.6	1.6	1.6
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.5	0.5
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Cardoon III	Harvest Season:	Summer	Summer	Summer	Summer
	Maize chopper+Lorry h ha^{-1}:	1.0	1.0	0.8	0.8
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	21.5	19.0	26.0	21.5
	Water content (%):	35	35	35	35
	Yield marketable product (t ha^{-1} yr^{-1}):	16.0	14.5	19.5	15.5
	Water content (%):	35	35	35	35

	Lusitanian	**Cropping system 3: Eucalyptus**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Eucalyptus I	Tillage Plough and disk harrow:	40-50 cm	35 cm	40-50 cm	35 cm
	h ha^{-1}:	3.8	2.9	2.9	2.3
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Eucalyptus I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount (plant ha^{-1}):	5000	5000	5000	5000
	Planter h ha^{-1}:	2.3	2.3	1.9	1.9
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Eucalyptus I	Crop practices				
	Fertilization:	Planting	Planting	Planting	Planting
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	195-12-130-90	60-5-65-45	125-12-132-92	195-12-130-90
	Fertilizer distributer h ha^{-1}:	1.0	0.8	0.8	0.6
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.25	0.25	0.25	0.25
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Irrigation (m^3 ha^{-1}yr^{-1}):	5000	-	5000	-
	Irrigation system:	Sprinkler	-	Sprinkler	-
	Irrigation pump type:	Diesel/electric	-	Diesel/electric	-
	Delivery high (m):	15	-	15	-
	Distance (m):	100	-	100	-
	MJ h^{-1}:	16506	-	16506	-
Eucalyptus II-III	Harvest Season:	Winter	Winter	Winter	Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	12.0	8.0	17.0	12.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	10.5	6.8	14.5	10.5
	Water content (%):	50	50	50	50
Eucalyptus III	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	70-0-0-0	-	70-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.6	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.6	1.6	0.9	0.9
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	218.99	218.99	218.99	218.99
	Crop sprayer h ha^{-1}:	5000	-	5000	-
	MJ h^{-1}:	Sprinkler	-	Sprinkler	-
	Irrigation (m^3 ha^{-1}yr^{-1}):	Diesel/electric	-	Diesel/electric	-
	Irrigation system:	15	-	15	-
	Irrigation pump type:	100	-	100	-
	Delivery high (m):	16506	-	16506	-
	Distance (m):				
	MJ h^{-1}:				
Eucalyptus IV-V	Harvest Season:	Winter	Winter	Winter	Winter
	Cut&Chip harvester+Lorry h ha^{-1}:	0.7	0.6	0.4	0.3
	MJ h^{-1}:	3726.2	3726.2	3726.2	3726.2
	Yield harvest (t ha^{-1} yr^{-1}):	24.0	16.0	34.0	24.0
	Water content (%):	50	50	50	50
	Yield marketable product (t ha^{-1} yr^{-1}):	20.0	13.5	29.0	120.0
	Water content (%):	50	50	50	50
Eucalyptus V	Crop practices				
	Fertilization:	Top dressing	-	Top dressing	-
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	70-0-0-0	-	70-0-0-0	-
	Fertilizer distributer h ha^{-1}:	0.9	-	0.6	-
	MJ h^{-1}:	218.99	-	218.99	-
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.6	1.6	0.9	0.9
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	218.99	218.99	218.99	218.99
	Crop sprayer h ha^{-1}:	5000	-	5000	-
	MJ h^{-1}:	Sprinkler	-	Sprinkler	-
	Irrigation (m^3 ha^{-1}yr^{-1}):	Diesel/electric	-	Diesel/electric	-
	Irrigation system:	15	-	15	-
	Irrigation pump type:	100	-	100	-
	Delivery high (m):	16506	-	16506	-
	Distance (m):				
	MJ h^{-1}:				

	Mediterranean South	**Cropping system 4: Ethiopian mustard-Cereal (wheat)-Legume (faba bean)- Sweet sorghum**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Ethiopian mustard I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Ethiopian mustard I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Ethiopian mustard I	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-80-70-0	80-40-35-0	140-80-70-0	80-40-35-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Ethiopian mustard I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	5.9	2.5	8.8	5.9
	Water content (%):	12	12	12	12
	Yield marketable product (t ha^{-1} yr^{-1}):	1.9	0.8	3.0	1.9
	Water content (%)	10.0	10.0	10.0	10.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	1.6	5.8	3.5
	Water content (%):	12.0	12.0	12.0	12.0
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	60-65-0	100-140-0-0	60-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	6.5	5.0	8.0	6.5
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	2.4	1.5	3.5	2.4
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	3.0	1.5	3.5	3.0
	Water content (%):	20	20	20	20
Faba bean III	Tillage Cultivator:	0-25 cm	0.15	0-25 cm	0.15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Faba bean III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Faba bean III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-100-0-0	0-70-0-0	0-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	202.19	202.19	202.19	202.19
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Faba bean	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5

III	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	7.0	6.0	8.5	7.0
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.0	1.4	3.0	2.2
	Water content (%)	15	15	15	15
	Yield straw (t ha^{-1} yr^{-1}):	3.5	3.0	4.0	3.5
	Water content (%):	15	15	15	15
Sorghum IV	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Sorghum IV	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum IV	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-100-60-0	35-75-20-0	50-100-60-0	35-75-20-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Irrigation (m^3 $ha^{-1}$$yr^{-1}$):	5000	2500	5000	2500
	Irrigation system:	Sprinkler	Sprinkler	Sprinkler	Sprinkler
	Irrigation pump type:	Diesel/electric	Diesel/electric	Diesel/electric	Diesel/electric
	Delivery high (m):	15	15	15	15
	Distance (m):	100	100	100	100
	MJ h^{-1}:	16506	8250	16506	8250
Sorghum IV	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	110	70	130	110
	Water content (%):	67	67	67	67
	Seed Yield (t ha^{-1} yr^{-1}):	6.0	3.8	7.1	6.0
	Water content (%)	18.0	18.0	18.0	18.0
	Yield straw (t ha^{-1} yr^{-1}):	86	54	102.1	86
	Water content (%):	70	70	70	70

	Mediterranean South	**Cropping system 5: Faba bean-Cereal (wheat)-Ethiopian mustard-Sweet sorghum**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Faba bean I	Tillage Cultivator:	0-25 cm	0.15	0-25 cm	0.15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Faba bean I	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Faba bean I	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-100-0-0	0-70-0-0	0-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	202.19	202.19	202.19	202.19
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Faba bean I	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	7.0	6.0	8.5	7.0
	Water content (%):	15	15	15	15
	Yield marketable product (t ha^{-1} yr^{-1}):	2.0	1.4	3.0	2.2
	Water content (%)	15	15	15	15
	Yield straw (t ha^{-1} yr^{-1}):	3.5	3.0	4.0	3.5
	Water content (%):	15	15	15	15
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	50-140-0-0	30-65-0	50-140-0-0	30-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	6.5	5.0	8.0	6.5
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	2.4	1.5	3.5	2.4
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	3.0	1.5	3.5	3.0
	Water content (%):	20	20	20	20
Ethiopian mustard III	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.9	2.1	2.3	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Ethiopian mustard III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}	5/7 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Ethiopian mustard III	Crop practices				
	Fertilization:	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	140-80-70-0	80-40-35-0	140-80-70-0	80-40-35-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.3	0.15	0.3	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99

Ethiopian mustard III	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	5.9	2.5	8.8	5.9
	Water content (%):	12	12	12	12
	Yield marketable product (t ha^{-1} yr^{-1}):	1.9	0.8	3.0	1.9
	Water content (%)	10.0	10.0	10.0	10.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	1.6	5.8	3.5
	Water content (%):	12.0	12.0	12.0	12.0
Sorghum IV	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Sorghum IV	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}	10 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Sorghum IV	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-100-60-0	75-75-20-0	100-100-60-0	75-75-20-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.0	0.5	1.0	0.5
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Irrigation (m^3 $ha^{-1}$$yr^{-1}$):	5000	2500	5000	2500
	Irrigation system:	Sprinkler	Sprinkler	Sprinkler	Sprinkler
	Irrigation pump type:	Diesel/electric	Diesel/electric	Diesel/electric	Diesel/electric
	Delivery high (m):	15	15	15	15
	Distance (m):	100	100	100	100
	MJ h^{-1}:	16506	8250	16506	8250
Sorghum IV	Harvest Season:	Autumn	Autumn	Autumn	Autumn
	Maize Chopper+Lorry h ha^{-1}:	1.0	0.9	0.8	0.6
	MJ h^{-1}:	883.32	825.55	825.55	825.55
	Yield harvest (t ha^{-1} yr^{-1}):	110	70	130	110
	Water content (%):	67	67	67	67
	Seed Yield (t ha^{-1} yr^{-1}):	6.0	3.8	7.1	6.0
	Water content (%)	18.0	18.0	18.0	18.0
	Yield straw (t ha^{-1} yr^{-1}):	86	54	102.1	86
	Water content (%):	70	70	70	70

	Mediterranean South	**Cropping system 6: Flax-Cereal (wheat)- Legume (faba bean)**			
Yr		Marginal land		Agricultural land	
		High input	Low input	High input	Low input
Flax I	Tillage Plough and disk harrow:	0-30 cm	0-10 cm	0-30 cm	0-10 cm
	h ha^{-1}:	2.5	2.0	1.9	1.6
	MJ h^{-1}:	883.32	883.32	883.32	883.32
Flax I	Sowing Season:	Spring	Spring	Spring	Spring
	Amount:	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}	100 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Flax I	Crop practices				
	Fertilization:	Sowing	Sow.+Top dress	Sowing	Sow.+Top dress
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	120-150-75-0	90-100-50-0	120-150-75-0	90-100-50-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	1.5	0.8	1.5	0.8
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	0.5	0.5	0.3	0.3
	Crop sprayer h ha^{-1}:	218.99	218.99	218.99	218.99
	MJ h^{-1}:				
Flax I	Harvest Season:	Late summer/fall	Late summer/fall	Late summer/fall	Late summer/fall
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	5.9	4.4	7.2	5.9
	Water content (%):	20	20	20	20
	Yield marketable product (t ha^{-1} yr^{-1}):	1.2	0.9	1.5	1.2
	Water content (%)	9.0	9.0	9.0	9.0
	Yield straw (t ha^{-1} yr^{-1}):	3.5	3.1	4.3	3.5
	Water content (%):	14.0	14.0	14.0	14.0
Wheat II	Tillage Plough and disk harrow:	0-25 cm	No tillage	0-25 cm	No tillage
	h ha^{-1}:	2.1		1.6	
	MJ h^{-1}:	883.32		883.32	
Wheat II	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	230 kg ha^{-1}	250 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.5	0.2	0.3
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Wheat II	Crop practices				
	Fertilization:	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.	Sow.+Top dress.
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	100-140-0-0	60-65-0	100-140-0-0	60-65-0-0
	Fertilizer distributer h ha^{-1}:	1.1	1.0	0.9	0.7
	MJ h^{-1}:	218.99	218.99	218.99	218.99
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	0	0	0	0
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	218.99	218.99	218.99	218.99
Wheat II	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer
	Combine harvester: h ha^{-1}:	0.8	0.7	0.6	0.5
	MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield (t ha^{-1} yr^{-1}):	6.5	5.0	8.0	6.5
	Water content (%):	16.0	16.0	16.0	16.0
	Yield marketable product (t ha^{-1} yr^{-1}):	2.4	1.5	3.5	2.4
	Water content (%)	13	13	13	13
	Yield straw (t ha^{-1} yr^{-1}):	3.0	1.5	3.5	3.0
	Water content (%):	20	20	20	20
Faba bean III	Tillage Cultivator:	0-25 cm	0.15	0-25 cm	0.15 cm
	h ha^{-1}:	1.2	0.8	0.9	0.7
	MJ h^{-1}:	323.50	323.50	323.50	323.50
Faba bean III	Sowing Season:	Autumn	Autumn	Autumn	Autumn
	Amount:	200 kg ha^{-1}	200 kg ha^{-1}	180 kg ha^{-1}	180 kg ha^{-1}
	Seed drill h ha^{-1}:	0.4	0.4	0.2	0.2
	MJ h^{-1}:	380.73	380.73	380.73	380.73
Faba bean III	Crop practices				
	Fertilization:	Sowing	Sowing	Sowing	Sowing
	Amount (N-P_2O_5-K_2O-CaO) kg ha^{-1}:	0-100-0-0	0-70-0-0	0-100-0-0	0-70-0-0
	Fertilizer distributer h ha^{-1}:	0.9	0.7	0.6	0.5
	MJ h^{-1}:	202.19	202.19	202.19	202.19
	Herbicides (kg ha^{-1} yr^{-1} of a.p.):	0.27	0.15	0.27	0.15
	Pesticides (kg ha^{-1} yr^{-1} of a.p.):	-	-	-	-
	Crop sprayer h ha^{-1}:	0.5	0.5	0.3	0.3
	MJ h^{-1}:	202.19	202.19	202.19	202.19
Faba	Harvest Season:	Spring/Summer	Spring/Summer	Spring/Summer	Spring/Summer

bean III	Combine harvester:	h ha^{-1}:	0.8	0.7	0.6	0.5
		MJ h^{-1}:	825.55	825.55	825.55	825.55
	Yield	(t ha^{-1} yr^{-1}):	7.0	6.0	8.5	7.0
	Water content	(%):	15	15	15	15
	Yield marketable product	(t ha^{-1} yr^{-1}):	2.0	1.4	3.0	2.2
	Water content	(%)	15	15	15	15
	Yield straw	(t ha^{-1} yr^{-1}):	3.5	3.0	4.0	3.5
	Water content	(%):	15	15	15	15