



UNIVERSITA' DEGLI STUDI DI CATANIA

Dipartimento di Scienze Agronomiche, Agrochimiche e delle Produzioni Animali  
Sez. Scienze Agronomiche

## Physiological traits

### Instruments:

#### Gas Exchange Measurement at leaf level:

Open system IRGA (LCA4 - Analytical Development Comp. LTD)

### Measured Variables:

CO<sub>2</sub> and H<sub>2</sub>O Vapour Exchange  
Stomatal Conductance

### Samples:

last fully expanded leaf,  
three time replicated for  
each plot.



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**Materials and methods**



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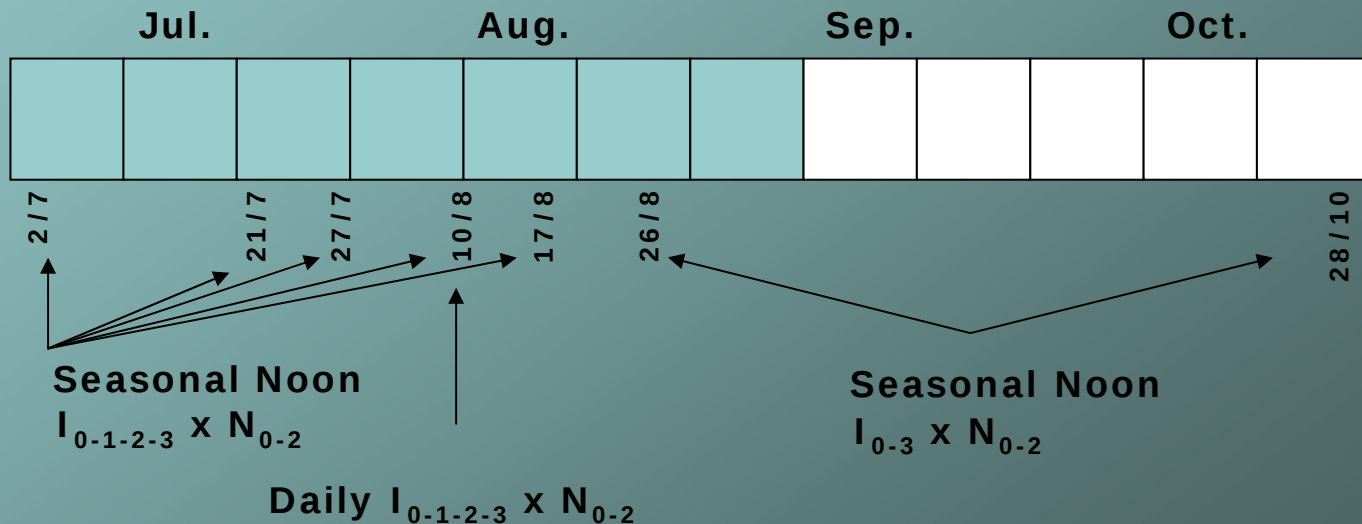
## Physiological traits

**Seasonal Noon measurements:**

**Scheduling:**

vegetative phase: 5 dates x all Irr levels and extreme N levels

reproductive phase: 1 date x extreme Irr and N levels



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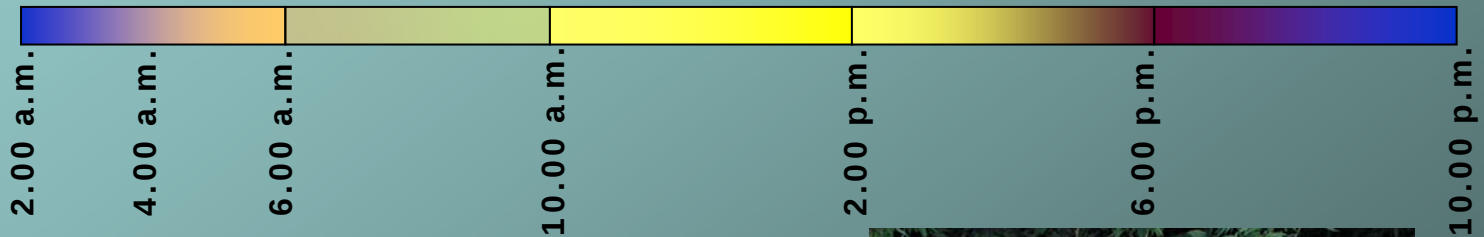
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## Physiological traits

**Daily measurement:**

**Scheduling:**

4 hours interval starting from 2.00 a.m. until 10.00 p.m.



At 4.00 a.m. measurement have been repeated aiming at studying night behaviour of Stomatal Conductance



# Materials and methods

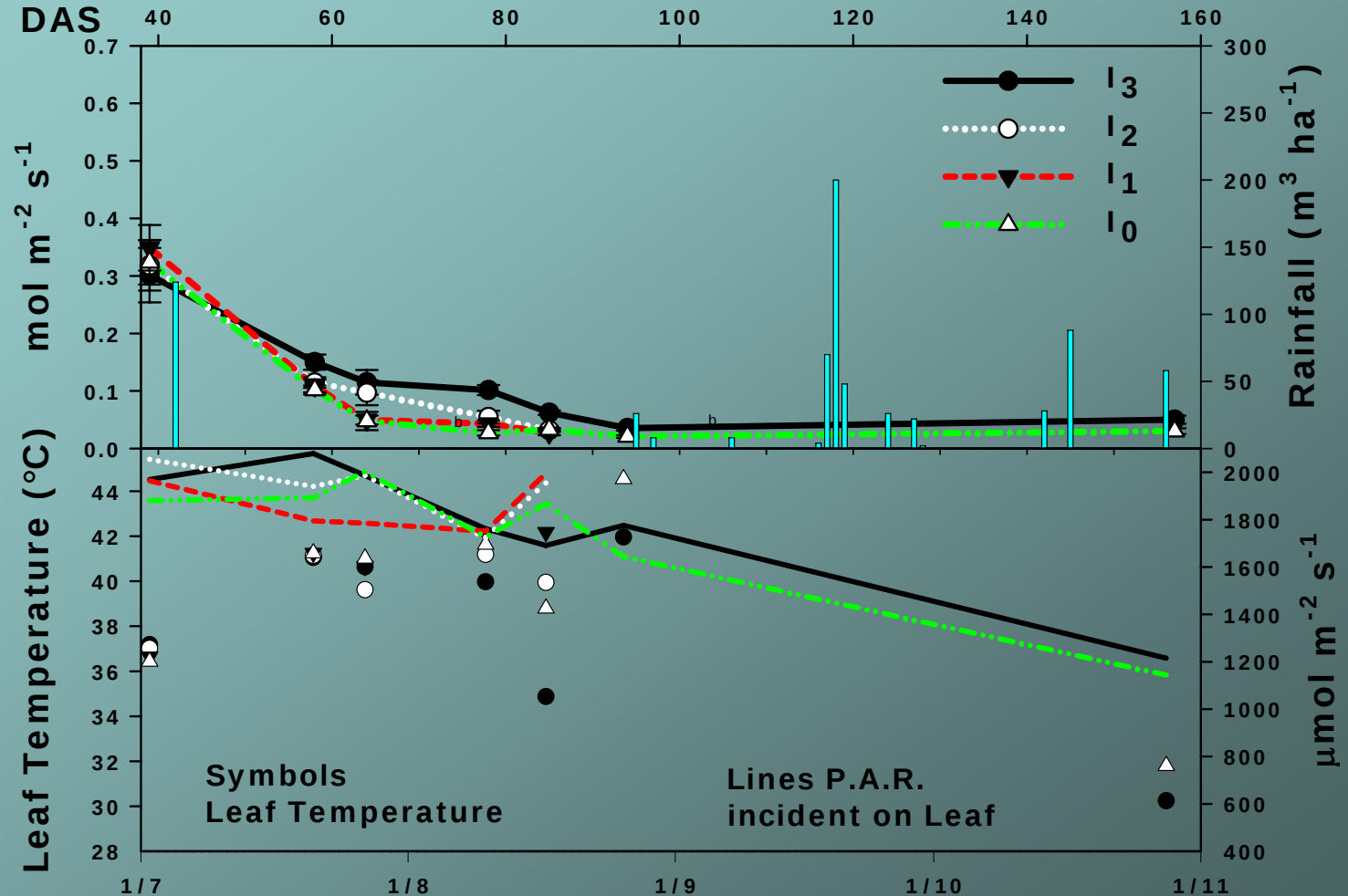
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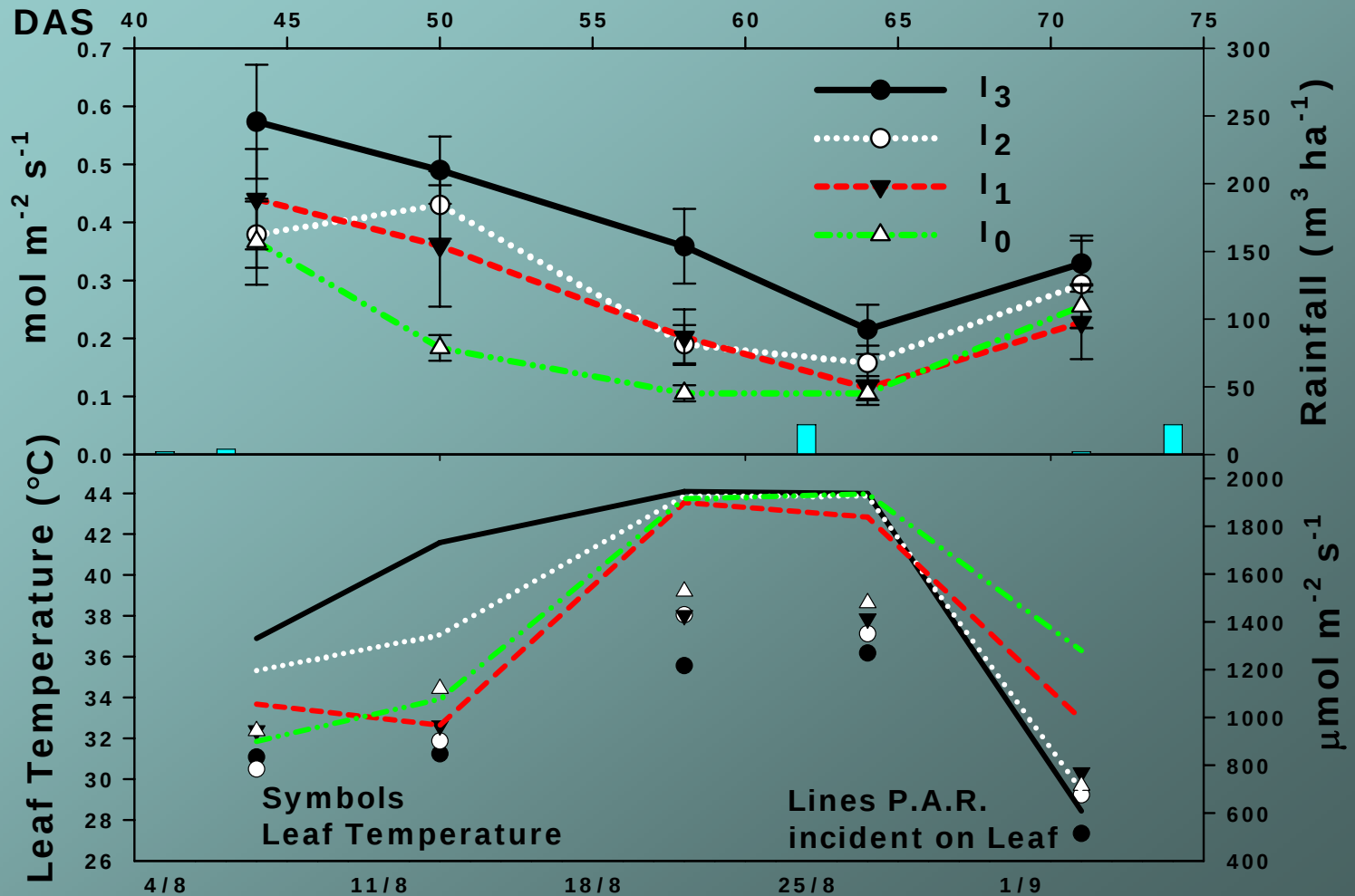
**Stomatal Conductance seasonal measurement  
2004**



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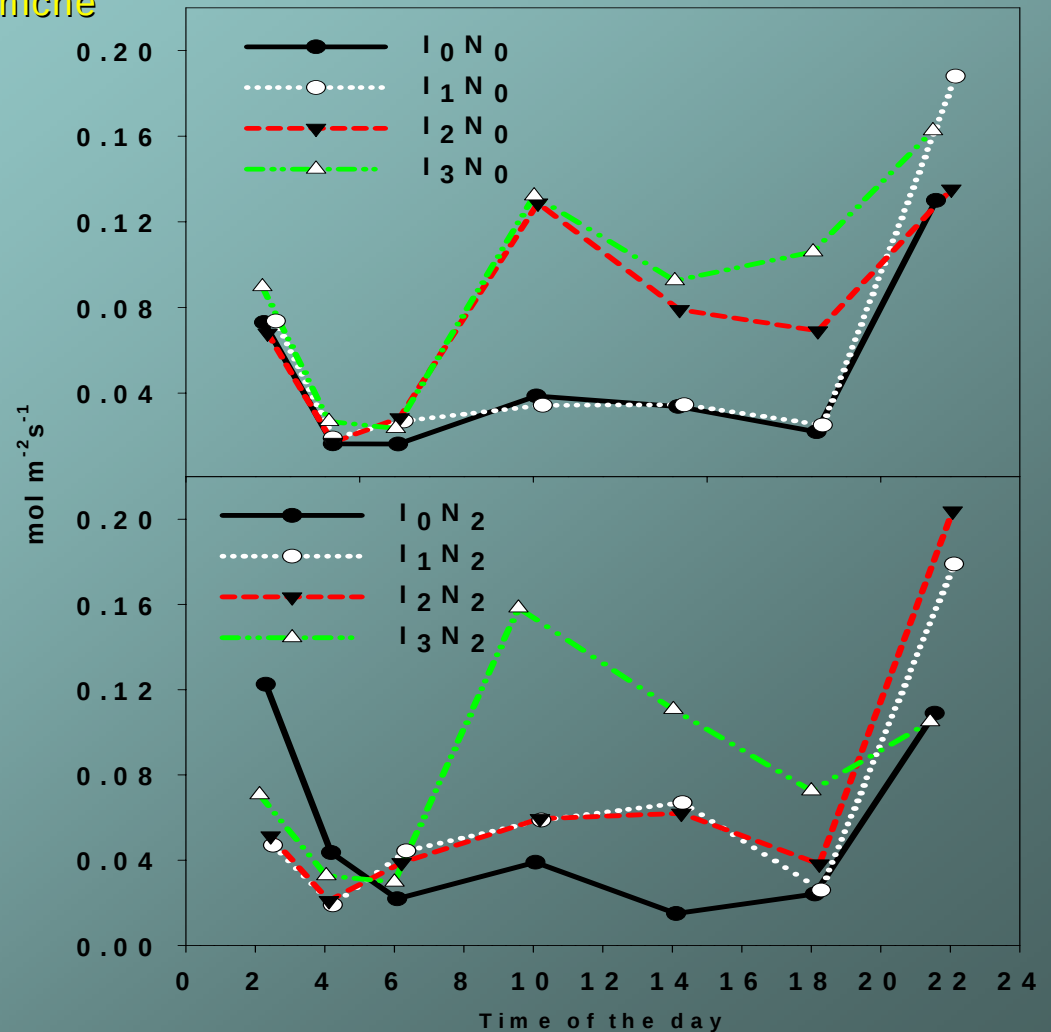
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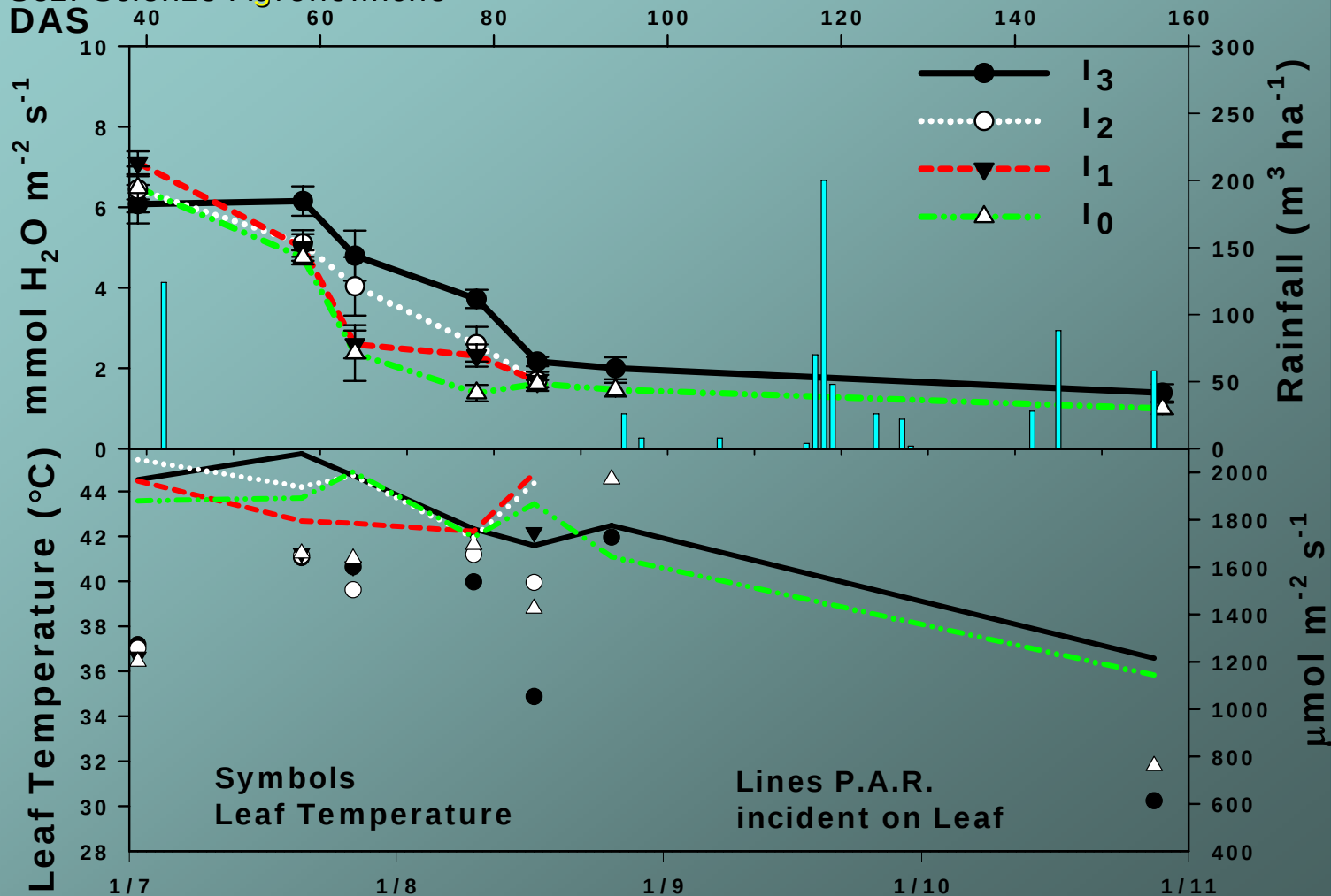
**Stomatal Conductance *daily measurement***  
**2004**



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**Leaf transpiration seasonal measurement  
2004**



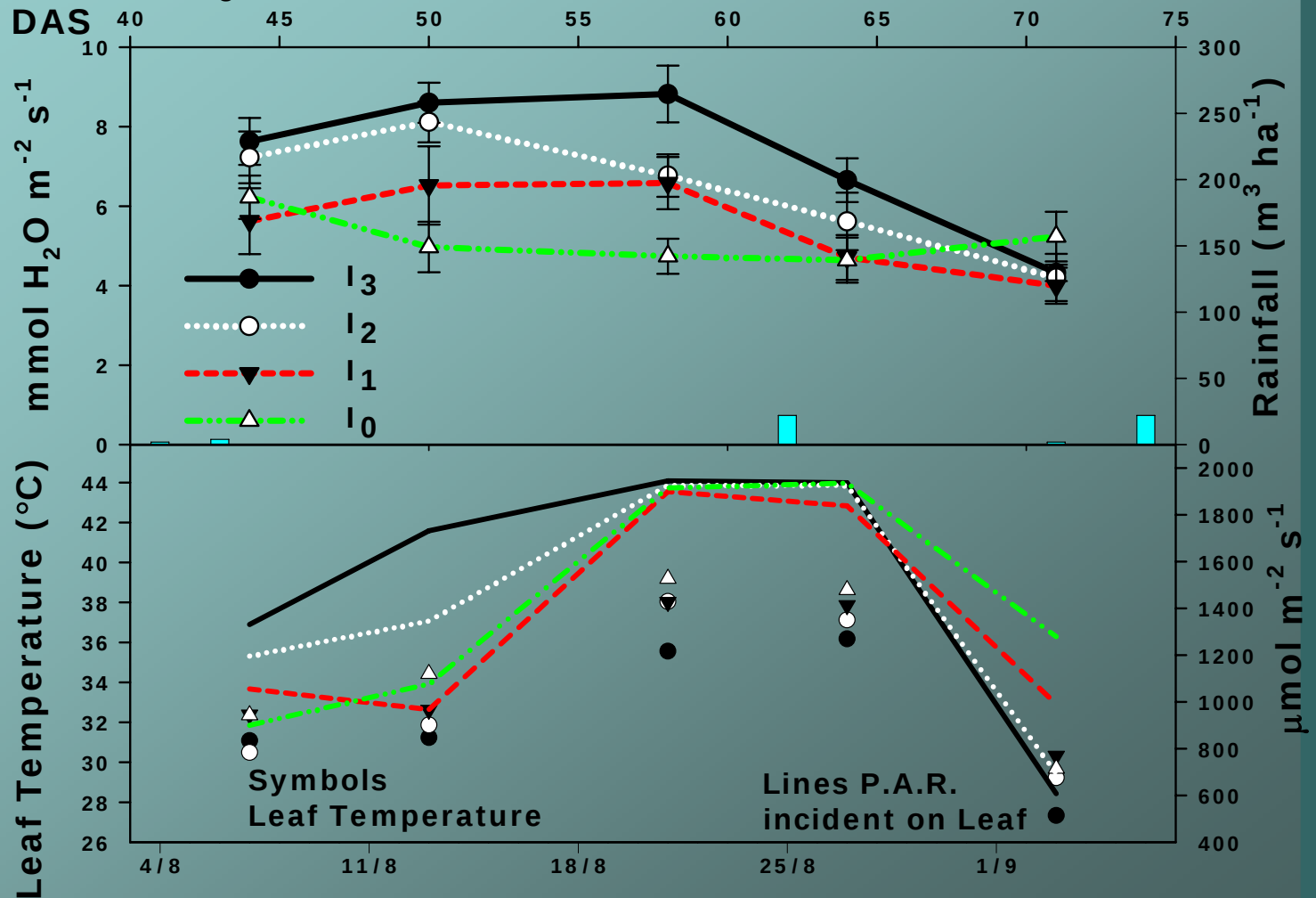
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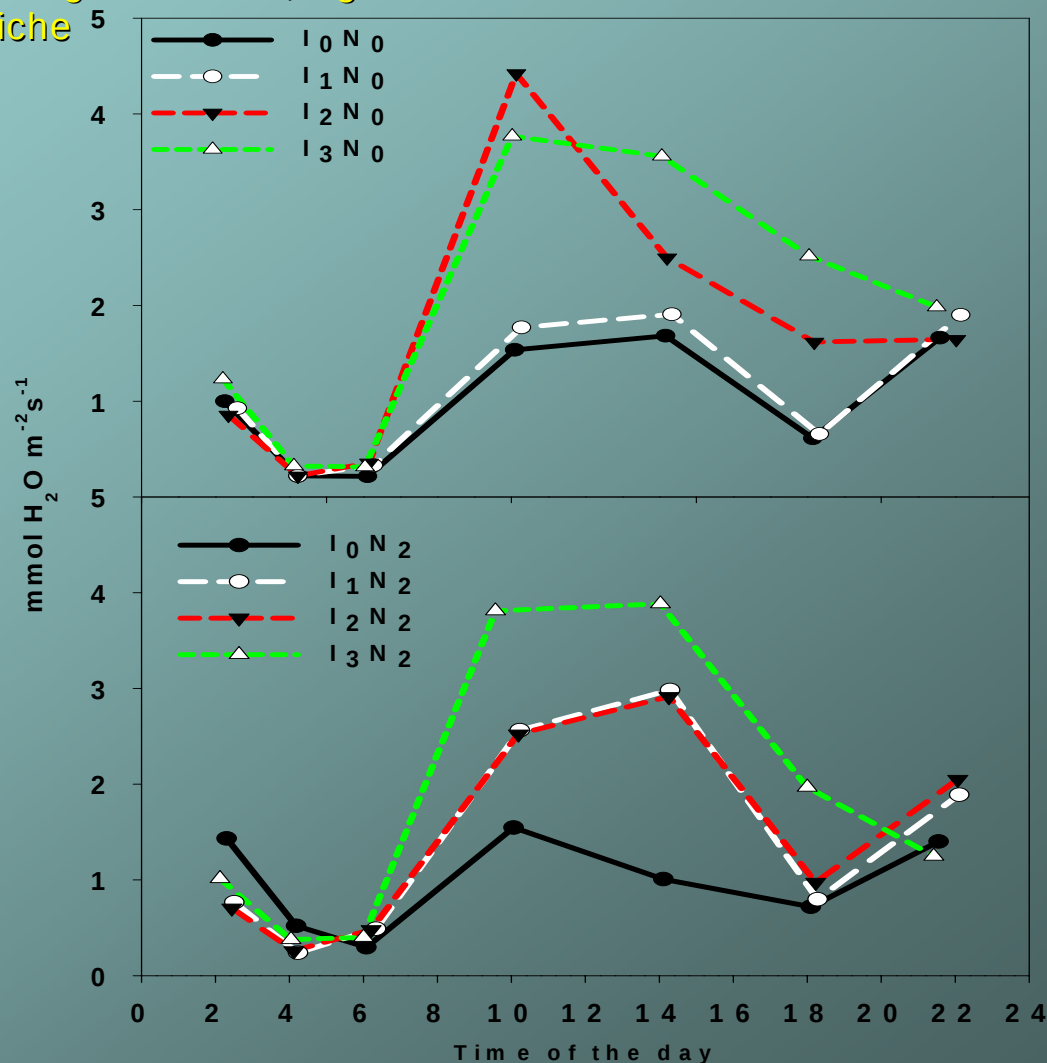
**Leaf transpiration seasonal measurement  
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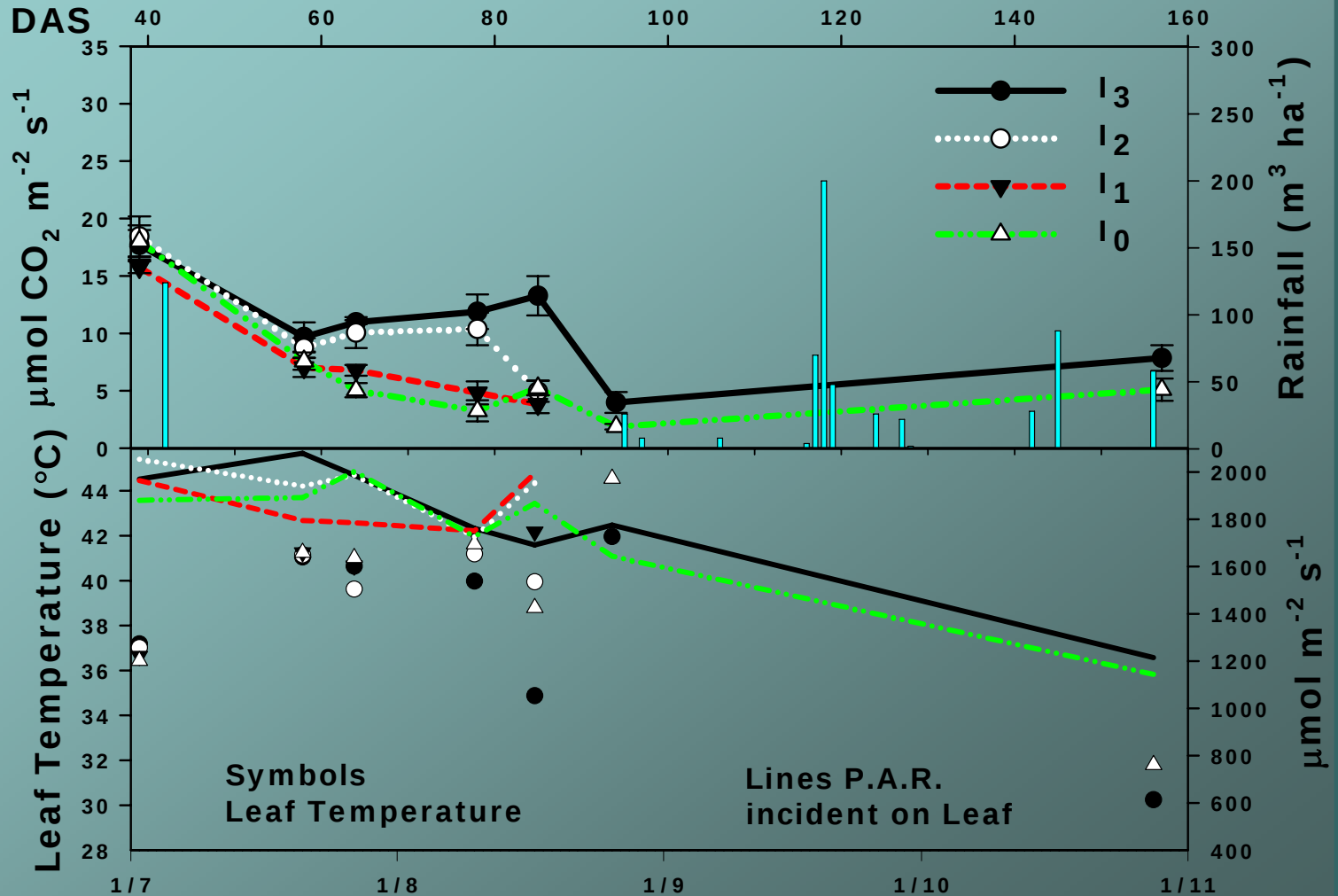
**Leaf transpiration *daily measurement***



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**Net Photosynthesis seasonal measurement  
2004**

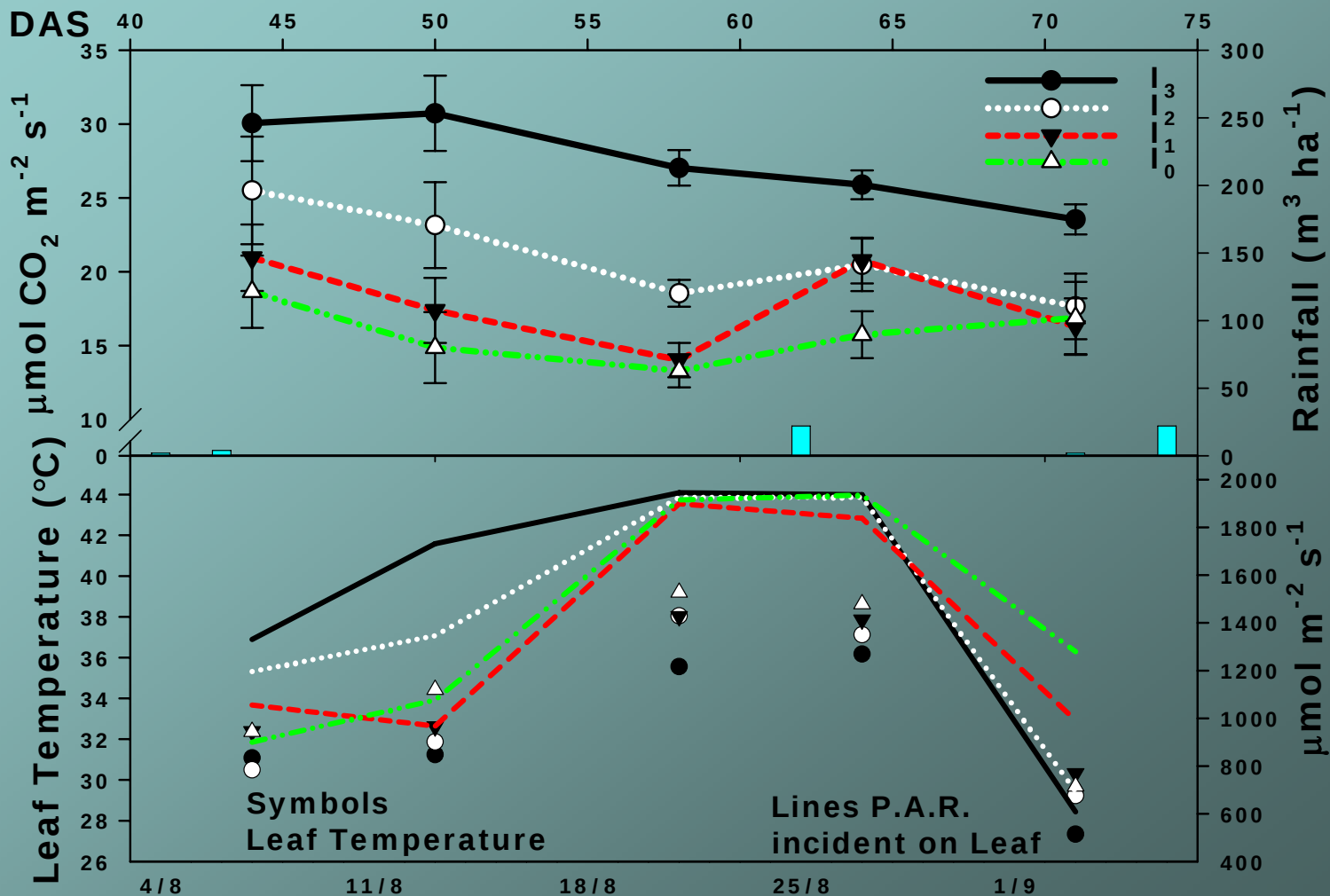


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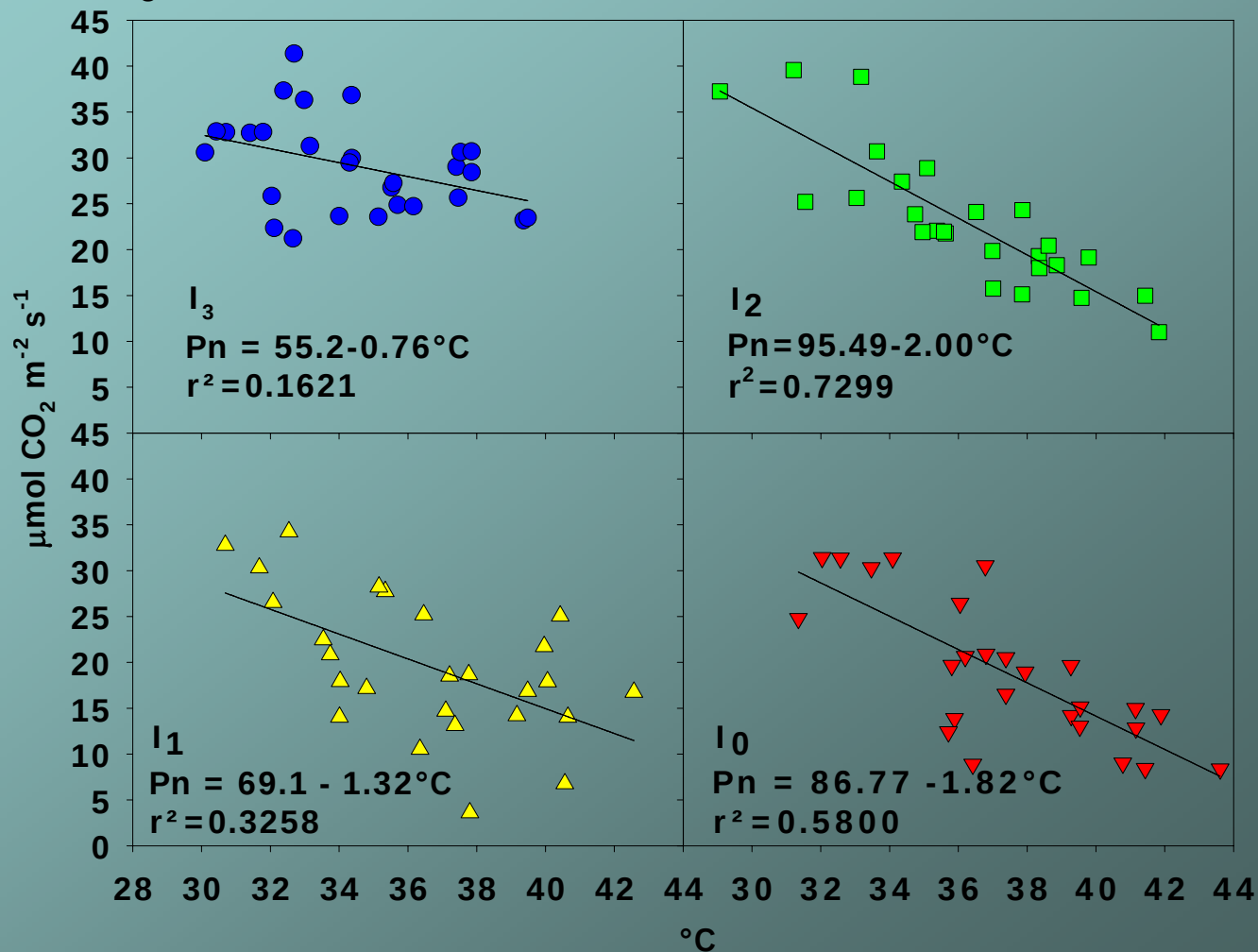
**Net Photosynthesis seasonal measurement  
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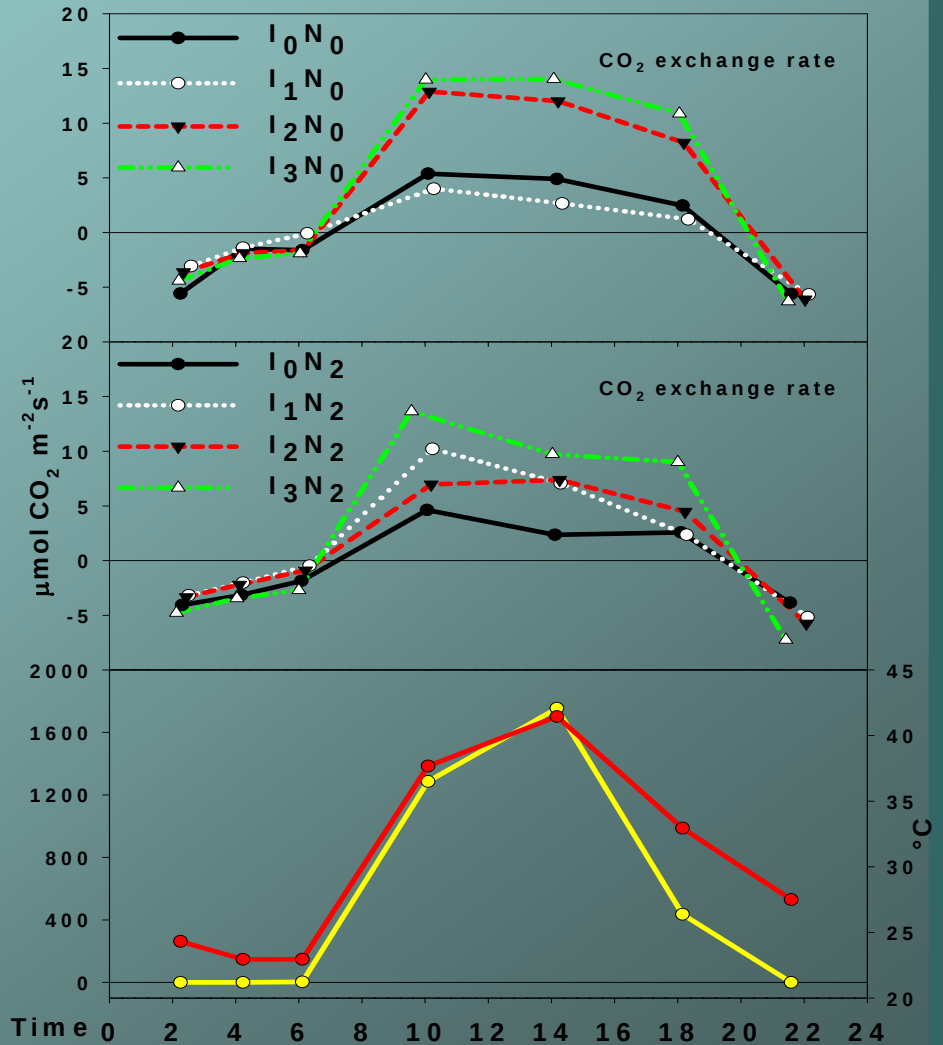
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**Net Photosynthesis *seasonal measurement***