



## Maize: ECOMETHOD

### Aim of the trial

Reduce soil fertilization of nitrogen and phosphorus on maize using a foliar nutrition program.

### General information

#### Conditions of the trial:

Trial location: Italy – Piemonte  
In cooperation with: Università degli Studi di Torino  
Sowing date: 26/05/2013  
Harvesting date: 07/11/2013

### Treatments

Trial plot was divided into 2 modalities. Samples were taken at 4 different sites for each modality.

#### 2 modalities:

⇒ Modality 1: Traditional fertilization of the farmer (only soil fertilization)

	Product	Dose	Moment of application
1	Diammonium phosphate (18-46-0)	100 kg/ha	At the sowing
2	Urea (46-0-0) 230 units/ha	500 kg/ha	Stage 6-8 leaves -01/07/13

⇒ Modality 2: Program BMS MN

	Product	Dose	Moment of application
1	Viener Zn		Seed treatment
2	Chelal Zn	1.5 L/ha	Stage 4-8 leaves (with post-emergence herbicide) – 17/06/13
	Kappa M	8 kg/ha	
3	Kappa M	8 kg/ha	With insecticide against the European corn borer – 11/08/13
4	Nitrogen	160 units	

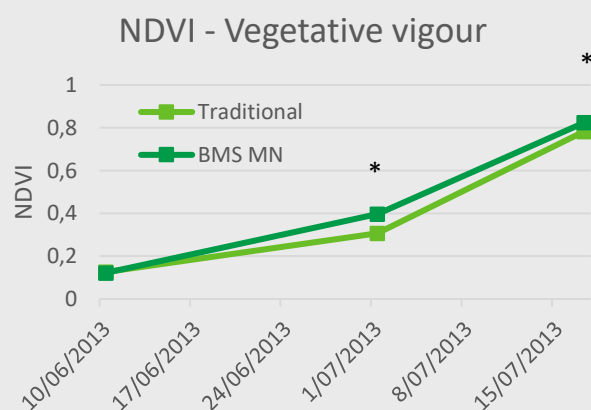
DPI - Statutory maximum fertilizer applications in Piedmont for maize:

N	240 kg/ha
P <sub>2</sub> O <sub>5</sub>	85 kg/ha
K <sub>2</sub> O	150 kg/ha

### Results

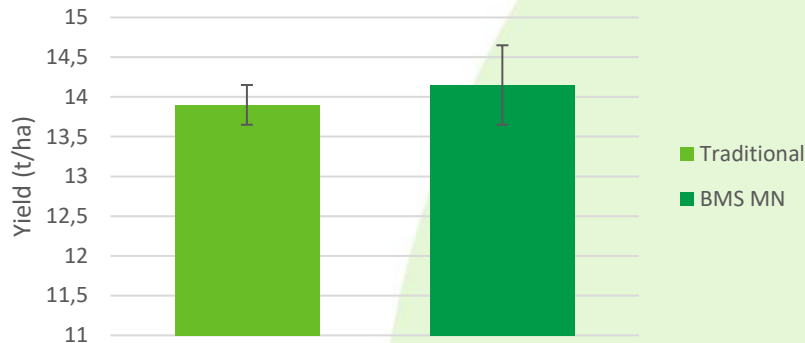
Modality	Moisture content of the grains at harvest	Specific density (at moisture content of 14% (kg/hl))
Traditional	28,95%	80,72
BMS MN	28,30%	80,88

\* statistically significant difference








### Grain yield



⇒ **Conclusion:** The experiments were carried out in a year marked by a particularly critical initial phase due to the difficult weather conditions that led to late sowing. Also in this trial, ECOMETHOD has shown that it can produce a yield comparable to traditional fertilization, with even slightly better characteristics (lower moisture content and higher vigour of the plants).

### Calculation of the carbon footprint of Ecomethod

Quantity CO <sub>2</sub> eq. ECOMETHOD	Quantity CO <sub>2</sub> eq. TRADITIONAL	Quantity CO <sub>2</sub> eq. DPI
		
762,1 kg/ha	1 198,6 kg/ha	1 477,5 kg/ha



<del>CO<sub>2</sub></del>	436,5	kg/ha reduction of CO <sub>2</sub> eq. emissions compared to the traditional fertilization
<del>%CO<sub>2</sub></del>	36,4%	Savings in CO <sub>2</sub> eq. compared to the traditional fertilization
<del>CO<sub>2</sub></del>	715,4	kg/ha reduction of CO <sub>2</sub> eq. emissions compared to the DPI



<del>%CO<sub>2</sub></del>	48,4%	Savings in CO <sub>2</sub> eq. compared to the DPI
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