



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	

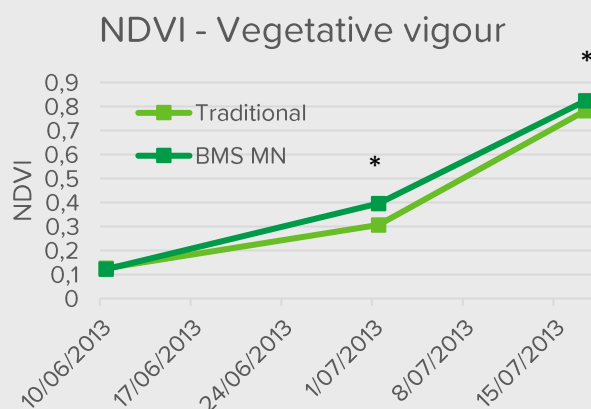
DPI - Statutory maximum fertilizer applications in Piedmont for maize:

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

Results

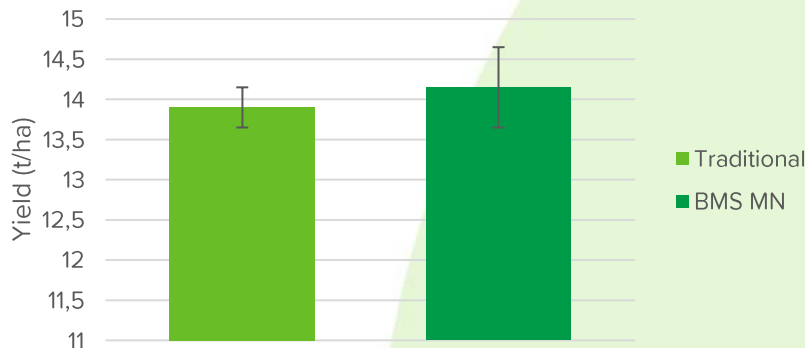
Modality	Moisture content of the grains at harvest	Specific density (at moisture content of 14% (kg/hl))
Traditional	28,95%	80,72
BMS MN	28,30%	80,88

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



CO₂	436,5	The reduction of CO ₂ eq. expressed in kg/ha compared to the traditional fertilization
% CO₂	36,4%	The saving percentage of CO ₂ eq. compared to the traditional fertilization
CO₂	715,4	The reduction of CO ₂ eq. expressed in kg/ha compared to the DPI
% CO₂	48,4%	The saving percentage of CO ₂ eq. compared to the DPI