



## Wine grapes: vigour programme

### Aim of the trial

The aim of this two-year trial is to determine whether the BMS MN programme makes it possible to increase the yield (and possibly the nitrogen content of the must). It is a plot of 1 ha that lacks vigour and is very affected by "court-noué".

### General information

Conditions of the trial:

Trial location: France – Champagne      Variety: Pinot Noir/PG 41 B (1993)  
In cooperation with: Vignobles du Château (Aÿ-Champagne)

### Treatments

2 modalities:

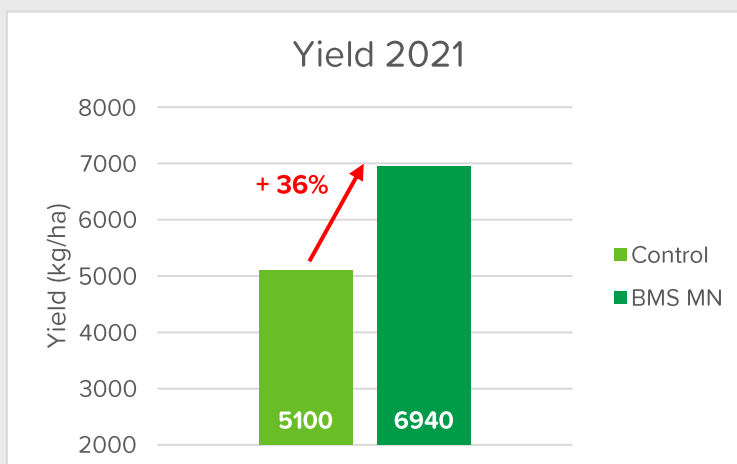
- Untreated control:
- BMS MN (2021 and 2022):
  - o Hyberol 2.5 L/ha + Magivert 1.2 L/ha
  - o Azavis Neo 1 kg/ha
  - o Azavis Neo 1.8 kg/ha
  - o Azavis Neo 1.2 kg/ha
  - o Azavis Neo 1.2 kg/ha

### Results

#### 2021 harvest:

On September 13, 9 vines per modality were fully harvested (BMS MN programme and control).

	Control	BMS MN
<b>TOTAL number of bunches</b>	100	152
<b>TOTAL weight</b>	5.5 kg	7.5 kg
<b>Average weight / bunch</b>	55 gr	50 gr
<b>Number of bunches per vine (average)</b>	11	17 (+ 55%)
<b>Yield/ha</b>	5100 kg/ha	6940 kg/ha (+ 36 %)





Analysis of the must (14 September 2021):

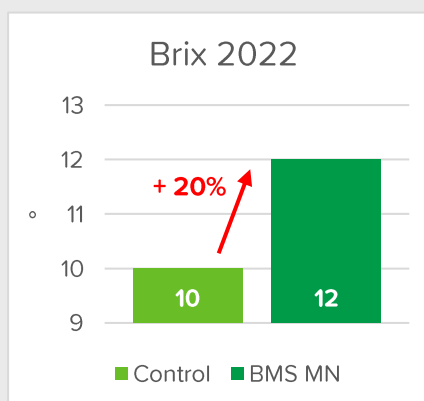
Parameters		Control	BMS MN
Density at 20 °C	g/dm <sup>3</sup>	1082.9	1074.8
Sugar	g/L	194.96	174.19
Alcohol pot.	% vol	11.58	10.35
pH		2.91	2.90
Total acidity	g/L H <sub>2</sub> SO <sub>4</sub>	8.18	9.28
Total acidity	g/L TH <sub>2</sub>	12.52	14.21
SO <sub>2</sub> total	mg/L	< 20	< 20
Enzymatic ammonium nitrogen	mg/L	77	76
Alpha amino nitrogen	mg/L	99	100
Digestible nitrogen	mg/L	176	176
Gluconic acid	g/L	< 0.05	< 0.05

- ⇒ The must analysis shows no significant differences. The potential alcohol content is higher in the control, which is normal given the much lower yield compared to the BMS MN modality.
- ⇒ The BMS MN programme increased the yield by **36%**.

#### 2022 harvest:

On August 29, 9 vines per modality were fully harvested (BMS MN programme and control)

	Control	BMS MN
TOTAL number of bunches	131	133
TOTAL weight	10.5 kg	10.5 kg
Average weight / bunch	80 gr	79 gr
Number of bunches per vine	14.6	14.8
Yield/ha	9300 kg/ha	9300 kg/ha
° Brix	10°	12° (+ 20%)



Analysis of the must 2022 :

Parameters		Control	BMS MN
Density at 20 °C	g/dm <sup>3</sup>	1074.5	1086.8
Sugar	g/L	173.42	204.96
Alcohol pot.	% vol	10.30	<b>12.18</b>
pH		2.98	3.02
Total acidity	g/L H <sub>2</sub> SO <sub>4</sub>	5.06	4.78
Total acidity	g/L TH <sub>2</sub>	7.75	7.32
SO <sub>2</sub> total	mg/L	< 20	< 20
Chaptalization	kg/hL	1.246	0

- ⇒ We have more homogeneity in the BMS MN modality regarding the number of bunches/vine (from 9 to 19) compared to the control (from 4 to 24).
- ⇒ We see a better maturity in the BMS MN treated modality: with equal yield we have **2° Brix more** (12° against 10°).