

Foliar nutrition on vines with weed competition



Objective of the trial

Solving 2 problems:

- Low nitrogen content in the must causing problems of bitterness in the wine.
- Diminished vigour because of plant cover between the rows.

General information

France – Rhône-Alpes Trial No.: 2015-01
 Plant density: 4000 vines/ha
 Variety: Clairette
 In cooperation with: Cave Coopérative Jaillance
 Weed control in the row under the plants and grass cover between the rows.
 There was a soil fertilization during the winter of 2015 on the whole plot:
 Organic fertilizer 3.3.2 at 800 kg/ha
 100 kg kieserite (25% MgO, 50 % SO₃)
 100 kg ammonium sulphate

Treatments

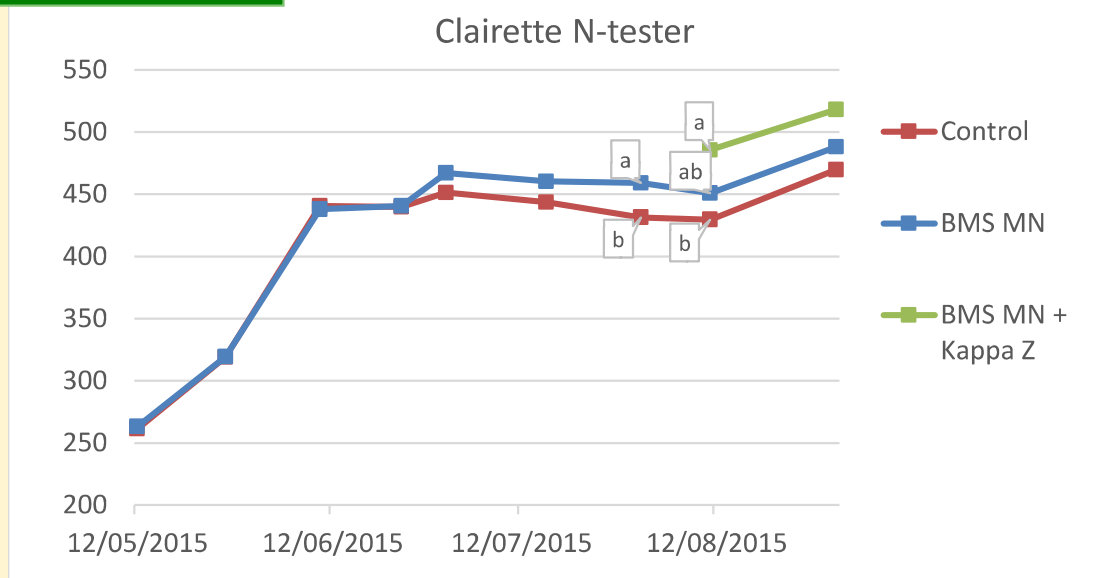
Modality BMS MN:

Phenological stages	BMS MN
5 or 6 leaves unfolded (F-12)	Kappa V 2 kg/ha Fructol NF 1 kg/ha
Inflorescences swelling, flowers closely pressed together (G-15)	Kappa V 3 kg/ha Fructol NF 1 kg/ha
Full bloom (I-23)	
Fruit set (J-27)	Fructol NF 2 kg/ha
Berries pea-size (29)	Kappa V 4 kg/ha
Berries beginning to touch (L-33)	Kappa V 4 kg/ha Chelal Mg 1 L/ha Chelal RD NF 1 kg/ha

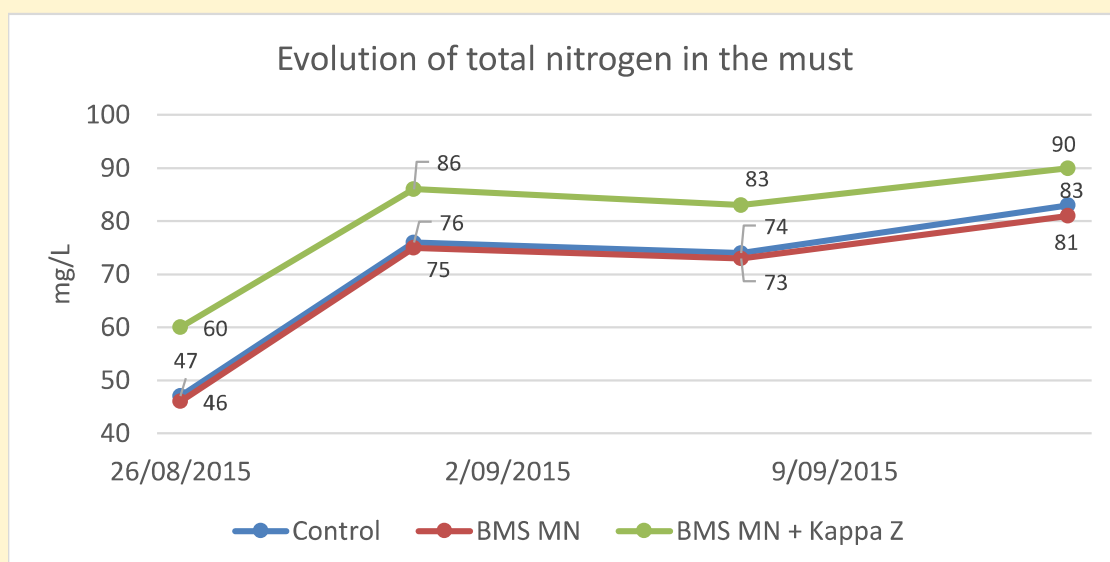
Modality Kappa Z :

Modality BMS MN + two applications of KAPPA Z which were carried out on August 04 and on August 12.

Results



Modality	Control	BMS MN	BMS MN + Kappa Z
Yield (30 vines)	80,3 kg	90,1 kg (+ 12,2%)	84,1 kg (+ 4,7%)
Yield/ha	10707 kg	12013 kg	11121 kg
Yield/vine	2,67 kg	3,00 kg	2,80 kg
Number of bunches/vine	12,23	12,66	12,60
Average weight of bunches	226 g	243 g	226 g
Degree (at harvest)	11,9	11,6	11,8
Weight of 200 berries	345 g	369 g (+ 7%)	362 g (+ 5%)



By using the N-tester, we found that the nitrogen nutrition and the photosynthetic activity improved with the foliar nutrition programme.

There was also an increase of yield without affecting the oenological parameters (+8%).

More homogenous bunches and vines with the foliar nutrition programme.

The nitrogen content in the must improved with KAPPA Z (approximately +10%).