

CROP : APPLE - *GOLDEN*

Good Experimental Practice (GEP) trial carried out in France in 2001

SITE DETAILS

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| TRIAL N° : BKA/295/01/STI | Crop information |
| 81500 LAVAUR South West region | Variety : Golden Root stock : Pajan Date of planting : 1992 Density of planting : 3,5 m between rows, 1,2 m on the row Height of the trees : 3 m Irrigation type : drip irrigation Over head hail protecting nets |

APPLICATION DETAILS

| | Product | Dose rate | Date of spraying | Crop stage at application | Volume of water | Remarks |
|-----------------|---------------|-----------|------------------|----------------------------|-----------------|-----------------------------|
| Application N°1 | AMINOFIT.Xtra | 2,5 l/ha | 14/04/01 | Preflowering | 300 l/ha | AMINOFIT.Xtra applied alone |
| Application N°2 | AMINOFIT.Xtra | 2,5 l/ha | 18/04/01 | Fall of the first petals | 300 l/ha | AMINOFIT.Xtra applied alone |
| Application N°3 | AMINOFIT.Xtra | 2,5 l/ha | 25/04/01 | End of petal fall | 300 l/ha | AMINOFIT.Xtra applied alone |
| Application N°4 | AMINOFIT.Xtra | 5 l/ha | 18/05/01 | Fruit 10 to 20 mm diameter | 300 l/ha | AMINOFIT.Xtra applied alone |
| Application N°5 | AMINOFIT.Xtra | 5 l/ha | 01/06/01 | Fruit 20 to 30 mm diameter | 300 l/ha | AMINOFIT.Xtra applied alone |
| Application N°6 | AMINOFIT.Xtra | 5 l/ha | 19/06/01 | Fruit 50% end size | 300 l/ha | AMINOFIT.Xtra applied alone |

MATERIALS AND METHODS

Plot size : 5 trees in one row; Observations were carried out on the central 3 trees

Trial design : Fisher Blocks with 4 replicates, control is randomised

Application method : Foliar spray

Equipment used : Backpack sprayer

Assessments : At harvest : The number of buds is measured on 50 clusters per plot.
The number of fruit and the calibre of the fruit are evaluated on 3 trees per plot.
The calibre is measured with a manual calibration slab.
The refractometer index (brix) and the acidity are measured on a sample of 50 apples per plot.
After harvest the fruit is kept in normal cold temperatures.

COMMENTS CONCLUSION

The season was not stressful and favourable for a good formation of the fruit. All plants were thinned out after bud formation. The number of buds and later the number of fruits was higher in the plots treated with AMINOFIT.Xtra. There was no negative effect on the calibre of the fruit thanks to the thinning. AMINOFIT.Xtra has a positively influenced the refractometer index with an increase of + 1 point Brix compared to the control, both at harvest and after four months of conservation. The acidity of the fruit is also lower in the treated plots, which confirms the action of AMINOFIT.Xtra on advancing maturity. AMINOFIT.Xtra acts significantly on the firmness of the fruits at conservation. At harvest the firmness between the treated plots and the control is similar; Fruits treated with AMINOFIT.Xtra remain firmer a longer period of time and after 4 months of storage the firmness is significantly higher with + 0,5 kg/cm².

RESULTS

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|--------------------|---|---|
| Date of assessment | 17/05/01 = 22 days after the third application | 07/09/01 = 80 days after the last application |
| Crop stage | End of fruit formation | Maturation |
| Type of record | % of set fruits on 50 pre marked flower bunches | % of fruits on 50 pre marked flower bunches |
| AMINOFIT.Xtra | 52 (a) | 30 (a) |
| UNTREATED CONTROL | 38 (a) | 28 (a) |
| % of the control | + 35.6 | + 5.8 |

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|--------------------|---|-----------------------|----------------------|
| Date of assessment | 17/09/01 = 90 days after the last application | | |
| Crop stage | Harvest – at maturity | | |
| Type of record | % fruit calibre <70 | % fruit calibre 70/80 | % fruit calibre > 80 |
| AMINOFIT.Xtra | 12 (a) | 52 (a) | 35 (a) |
| UNTREATED CONTROL | 13 (a) | 45 (a) | 42 (a) |
| % of the control | - 8.0 | + 15.6 | - 16.6 |

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|--------------------|---|----------|----------|------------------------|----------|----------|
| Date of assessment | 17/09/01 = 90 days after the last application | | | 09/01/02 | | |
| Crop stage | Harvest – at maturity | | | 4 months after harvest | | |
| Type of record | Refractometer index | Firmness | Acidity | Refractometer index | Firmness | Acidity |
| AMINOFIT.Xtra | 14.2 (a) | 7.38 (a) | 4.67 (a) | 14.8 (a) | 4.62 (a) | 2.81 (a) |
| UNTREATED CONTROL | 13.2 (b) | 7.34 (a) | 4.84 (a) | 13.8 (b) | 4.12 (b) | 2.96 (a) |
| % of the control | + 7.6 | + 0.5 | - 3.5 | + 7.2 | + 12.1 | - 5.1 |

GRAPHS

