

WUXAL[®] Aminocal

BY AGLUKON

Liquid, highly concentrated calcium formulation for the late control of bitter pit and for improvement of storage quality

Description

Wuxal Aminocal is a special formulation for the improvement of fruit storage potential in the later stages of crop development, before harvest and for the promotion of fruit colour.

Wuxal Aminocal is free of mineral nitrogen and therefore excludes the late promotion of shoot growth, especially in varieties subject to high vigor.

Wuxal Aminocal is a new calcium formulation containing a natural polypeptide additive including manganese and zinc.

The peptide additive, which is adjusted to a medium molecular weight, leads to an evident reduction of surface tension and promotes adhesiveness. Medium-chained peptides are slowly absorbed by the leaves and fruits and at the same time promote plant metabolism. The pH-value of Wuxal Aminocal is about 4.0. Result: Excellent calcium supply even through the skin of older fruits. Like in nature, zinc and manganese are able to form protein-complexes with the polypeptides and facilitate the absorption of calcium. Furthermore fruit colour is promoted (for example the green basic colour of Jonagold).

Key benefits of WUXAL Aminocal

- highly concentrated liquid calcium formulation for preharvest treatment and for reduction of storage diseases
- excellent spray coverage of fruits and leaves
- very good adhesiveness, only minimum leaching losses
- free of mineral nitrogen
- optimal pH-value (approx. 4.0)
- increased bio-availability of calcium, manganese and zinc (natural polypeptide complexes)
- promotion of fruit color

Contents

Calcium chloride solution containing manganese and zinc. For foliar fertilization.

	% w/w		g/l
15	% CaO	Calciumoxide water-soluble	202
10.7	% Ca		144.7
0.5	% Mn	Manganese water-soluble	6.7
0.5	% Zn	Zinc water-soluble	6.7

Additionally, Wuxal Aminocal contains a highly concentrated polypeptide / aminoacid additive.

Physicochemical properties

Density:	1.35 g/cm ³
pH-value:	approx. 4.0
Colour:	amber

Precautions and Liability

When storing the product, temperatures below -10°C (14°F) and above +40°C (104°F) as well as frequent temperature fluctuations should be avoided. Keep the product in the original container till application.

When mixing with pesticides for the first time, test on a small scale before general use.



Calcium formulation for late applications.

Improves fruit firmness

Improved shelf life.

Packaging

20 l can, 200 l drum

Fields of application and rates of use

Crop	No. and Timing of Application	Rates of use
Apples*	3 - 4 x starting 3 - 5 weeks before harvest	5 - 8 l/ha
Stone fruit Sweet cherries Plums	3 - 5 x during splitting stress conditions 4 treatments starting at post blossom and 30, 60 and 90 days after blossom	5 l/ha 5 l/ha
Strawberries	2 - 3 x joint application with botrytis treatments	5 l/ha
Table grapes	repeatedly to improve resistance against berry splitting	5 l/ha
Grapevine	3-4 applications in joint application with fungicide sprays between fruit set and veraison	5 l/ha
Vegetables open field protected cultivation	according to variety's demand according to variety's demand	5 l/ha 0,20%-0,25%
Tomatoes/ Peppers	3 - 5 x starting after first flowering . Repeat in 7 - 10 day intervals.	5 l/ha
Lettuce	Start 2 - 3 weeks after planting. Repeat in 7 - 10 day intervals (reduction of tip-burn incidence)	5 l/ha
Brassicas (Cabbage, Cauliflower)	Start applications shortly before head formation. Repeat in 7 - 10 day intervals (reduction of internal browning)	5 l/ha
Kiwifruit	3-4 applications between post-flower and pre-harvest at 14 day intervals in order to increase calcium fruit content and improve storage quality.	3 -5 l/ha (water volume: 1000 - 1,500 l/ha)

*Comment:

5-8 l/ha in approx. 500l water/ha. Begin applications 3-5 weeks before expected harvest at intervals of at least 8 days. The frequency of application depends on bitter pit sensitivity and bitter pit risk (fruit load, fruit size, etc.). Last application should be conducted shortly before harvest. For early calcium applications we recommend the highly compatible suspension WUXAL Calcium, which also decreases russetting.

Effect of different Calcium foliar fertilizers on bitter pit incidence of apples, var. Maigold

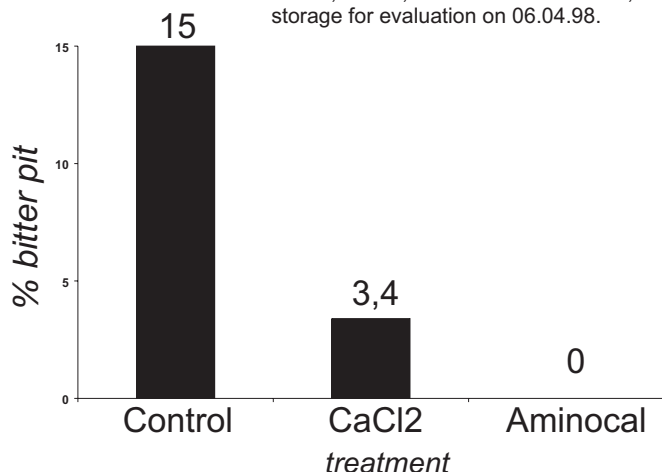
Trial site: Vordemwald, Switzerland 1997
Trial by Plüss Stauffer AG

Treatments

Control: without any foliar treatment
Calciumchloride: 1.0 %
Wuxal Aminocal: 0.5 %
Four treatments starting on 06.08.97 until 16.09.98 in 14-day intervals

Evaluation

Harvest: 06.08., 19.08., 04.09. and 16.09.1997, cool storage. Fruits were taken from storage for evaluation on 06.04.98.



Conclusions:

WUXAL Aminocal showed the best performance against bitter pit by reducing - in comparison to calciumchloride - the bitter pit incidence to zero.