



***ZEOLITITE CHABASITE***

***PROTOCOL OF USE***  
***VIGNATECH 70 - 10***

*Vigna Tech s.r.l.s.*  
*Regione Dota, 28*  
*14053 Canelli (AT) - Italy*  
*export@vignatech.it*

*Agronomo Gianluca Pierano*  
*Rocca de'Baldi (CN)*  
*agronomo@vignatech.it*

## THE USE OF CHABASITE IN AGRICULTURE

### GENERAL TECHNIQUES USE

The chabasite zeolite has many important characteristics for the cultivation of the vine. It create one condition of "tank" that captures the fertilizing components present in the ground or made from fertilizations, not allowing the leaching or dispersion of the components anymore volatile.

It also has a natural water retention capacity, in this way it has double functions:

- 1) It traps and regulates the water available in the soil to the plants.
- 2) Accumulates it in the knitting action mining releasing it gradually.

In detail:

Granular:

- Increases the cationic exchange of the soil, in this way the start of use of zeolite in habitual agronomic practices reduces already the dosage of the fertilizer used usually.
- Increases the " long release " capacity of the fertilizer, capturing the components fertilizers and gradually releasing them, making them automatically more assimilable to the plant.
- Increases aeration and oxygenation of the soil.

Micronized:

- Creates a protective patina on the leaf that creates an unfavorable condition, either to the landing of fungal weeds that in the landing of insects.
- Makes water " lighter " therefore more assimilable for the plant.
- It makes leaf treatments and fertilizations more effective, allowing a reduction of 20% of the use of the products right from the first treatment, decrease up to 70% without compromising their functionality.

### GENERAL TECHNIQUES AND DOSAGES

Academically, the treatment per hectare is possible to simplify it in the dosages below:

AGRONOMIC PRACTICE	DOSAGE	VARIOUS
Sowing of the cuttings	1 / 1.5 kg up to 3 kg	depending on rootstock and cultivated variety.
Broad treatment buried	1000-1500 kg / ha up to 3000 kg	depending on variety and rootstock.
Log treatment	1.5 kg up to 3 kg	depending on the variety, exposure and health of the vineyard.
Foliar treatment	VINES: 3-6KG / ha for 500lt max of spraying. FRUIT: 10-12 kg / ha up to 15 kg Wet ORTICOLE: 0.8-1Kg / 100lt DRY TREATMENT: 15kg- 30kg / ha powdery	depending on variety, sixth of plant and agronomic choices by calculating 4 to 6 treatments per year.

# VITICULTURE

## *PERONOSPORA plasmopara viticolae*



### MONITORABLE DAMAGES

The affected leaves become necrotic and fall precociously, while the inflorescences, which are extremely sensitive to the pathogen, turn yellow and then necrotize, losing the typical "S" shape and dry out. In the bunch, instead, between the setting and closing phase bunches, in conditions of low humidity there is a manifestation of the pathology with browning and partial or total drying of berries and grapes that they usually take a "hook" shape.

### CONSIDERATIONS FOR END OF TREATMENT

From the data collected during field trials and subsequent tests with users direct product, it is stated with technical and photographic data that in a plot dealt with chabasite denotes the following:

- General increase of the health of the plant.
- Containment of the first infection of 70%.
- Containment of the second infection of 100%.
- Totally traps and grappols cleaned by disease.

### DOSAGE SET FOR PATHOLOGY

TPOLOGY	TREATMENT	CHEMICAL DECREASE DOSAGE	VARIOUS
Wet	2,5kg / 200lt low vegetation 3-4 kg / 400l high vegetation	Not made	in the presence of strong infection, treat every 7 days

# VITICULTURE

## *OIDIO*



### MONITORABLE DAMAGES

Formation of a whitish felt and powdery appearance, present on the surface of the affected organs, due to the intertwining of the hyphae in emission and the spores. The most frequently affected organs are herbaceous leaves and buds, more rarely the fruits in growth. During the attacks, the affected areas suffer a first stage visible discoloration already removing the mycelium, then appears the necrosis of the tissues. In the last stage, desiccation and splitting occurs (the latter on the fleshy organs). These splits can easily favor the onset of diseases such as Botrite.

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### DOSAGE SET FOR PATHOLOGY

TYOLOGY	TREATMENT	CHEMICAL DECREASE DOSAGE	VARIOUS
Wet	2.5kg / 200lt low vegetation 3-4 kg / 400l high vegetation	Not made	Initial treatment every 10 days, in the presence of severe infection 7 days
Dry	5kg on 15kg sulfur	Made	-

# VITICULTURE

## *BOTRYTIS*



### MONITORABLE DAMAGES

Causes two types of infections:

- Gray rot: occurs in maturation and requires a constant moisture condition of the soil or a high humidity level in atmospheric air. The infection causes the fall of the infected bunches.
- Noble rot: Occurs in hot and dry conditions, wet conditions alternate because of morning dew or sporadic rainy events; these favor one limited diffusion of the fungus which increases the withering and the sugar degree of the grapes without causing excessive damage (particularly useful in the production of wines high quality liqueur).

### CONSIDERATIONS FOR END OF TREATMENT

From the data collected during field trials and subsequent tests with users direct product, it is stated with technical and photographic data that in a plot dealt with chabasite denotes the following:

- General increase of the health of the plant
- 80% infection content
- Completely dry and cicatrized wounds
- Bunches of grapes almost cleaned by disease

### DOSAGE SET FOR PATHOLOGY

TYPOLOGY	TREATMENT	CHEMICAL DECREASE DOSAGE	VARIOUS
Wet	6 kg / 400lt high vegetation	Not made	Initial treatment every 10 days, in the presence of severe infection 7 days
Dry	-	-	-

# VITICULTURE

## DAMAGE FROM HAILSTORM



### MONITORABLE DAMAGES

Physically little to say about an event like this except that they are event damage calamitous not controllable. The appearance of such can promote the onset of diseases such as B.Cinerea and Oidio with an exponential increase in production loss.

It is possible to limit this problem with green pruning techniques where the topping will be limited to slow down the fall of the grains or with the laying directly of anti hail nets.

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- Bunches of grapes almost cleaned by disease

### DOSAGE SET FOR PATHOLOGY

TYPOLOGY	TREATMENT	CHEMICAL DECREASE DOSAGE	VARIOUS
Wet	6 kg / 400lt high vegetation	Not made	Initial treatment every 10 days, in the presence of severe infection 7 days
Dry	-	-	-

# CORILICOLTURA

## *HALIOMORPHA HALIS*



### MONITORABLE DAMAGES

Presence of ovations on the lower page of the leaves. The most noticeable damages are fruit bites (general damage on all crops) that grow and mature present the malformations first and then the decay of the pulp around the area of the puncture with relative loss of the fruit .

### CONSIDERATIONS FOR END OF TREATMENT

From the data collected during field trials and subsequent tests with users direct product, it is stated with technical and photographic data that in a plot dealt with chabasite denotes the following:

- Overall increase in plant health
- Containment of the first generation of 70%
- Containment of the second generation of 70% if used pure, associating the treatment with insecticides or fatty alcohols increases the knocking effect with an increase in the lethality of the product

### DOSAGE SET FOR PATHOLOGY

TIPOLOGY	TREATMENT	CHEMICAL DECREASE DOSAGE	VARIOUS
Wet	10-15kg / 1000 1500lt Spraying	Not made	in the presence of strong infestation treat 8-10 days for 6 treatments
Dry	15 on 30kg of sulfur	Not made	2 treatments in the erytopid period

# FRUIT

## *HALIOMORPHA HALIS*



### MONITORABLE DAMAGES

Presence of ovations on the lower page of the leaves. The most noticeable damages are fruit bites (general damage on all crops) that grow and mature present the malformations first and then the decay of the pulp around the area of the puncture with relative loss of the fruit .

### CONSIDERATIONS FOR END OF TREATMENT

From the data collected during field trials and subsequent tests with users direct product, it is stated with technical and photographic data that in a plot dealt with chabasite denotes the following:

- Overall increase in plant health
- Containment of the first generation of 70%
- Containment of the second generation of 50-70% as a pure treatment, the treatment becomes more effective when associated with pyrethroid insecticide or products based on natural alcohols.

### DOSAGE SET FOR PATHOLOGY

TYPOLOGY	TREATMENT	CHEMICAL DECREASE DOSAGE	VARIOUS
Wet	psyllids	10kg/1000lt	in the presence of strong infestation treat 7-8 days for 6 treatments and re-evaluate pathological condition
	monilia	9kg/1000lt	
	afide lanigero	10kg/1000lt	
	aphids	9kg/1000lt	
	funginee pathologies	9kg/1000lt	
Dry	aphids	15kg on 30 kg of sulfur	