

OASIS® USE GUIDE

NEW TECHNOLOGY MANAGEMENT ABIOTIC STRESS



Oasis, new technologies Nutriprove S.A.®

Oasis managing heat stress and sunburn

Radiation and temperature stress

Highest problem that economic importance, in agricultural production. In countries with high radiation climates at the summer. In temperate regions, the wide fluctuations in the intensity of the radiation and temperature can also lead to significant damage to the plant tissues. Heat and radiation leak significant amounts of performance and production quality of the plant.

NUTRIPROVE
Nutrición y protección vegetal



OASIS
CONTROL CLIMATE IN CROPS

The most common symptoms are wilted or unhealthy plants and physical damage is expressed in stems, trunks, branches, twigs, Leaves and fruit, which is known as "sunburn damage." These symptoms are caused initially by slight damage to the plant photosynthetic apparatus, followed by damage to other tissues. Even in a plant that is healthy, the high temperature and radiation stress can be reduced or completely stop photosynthesis, which leads to a great loss in productivity.

Water stress

It is a complex process that is closely related to the conditions of temperature and solar radiation. The scarcity of water in the soil can initiate and exacerbate stress and radiative heat. When the soil moisture is low, the ground is inefficient in its cooling capacity through perspiration. In the leaf stomata to the temperature increase close. The photosynthetic machinery is turned off and the plant is no longer able to process the energy of the light entering cells. This leads to photoinhibition, an accumulation of free radicals (oxidants) and ultimately to tissue destruction and cell death, known as symptoms of "sunburn damage".

In the case where thermal stress is initiated by high ambient temperatures, the cooling plant reacts by increasing perspiration, when the soil moisture is low, the same trigger events described above.

When applying Oasis

Using Oasis for reducing heat stress and sunburn

Oasis can be increase plant vigor, yield and quality of crops. Under high temperatures, reduces temperature Oasis foliage, reducing the chances of severe stress events radiative, thermal and water.

Reducing stress periods result: higher fruit quality (TSS / Brix) and fruit size, improved fruit color, fall reduction and less damage from burns. The best results are obtained from early treatment program. But we can also take the management of Oasis sunburn later in the season. (See recommendations for use).

Oasis is a product developed for the reduction of thermal and water stress in crops which can not be used or kaolin's Suncrops overall. Is specially designed to be applied to fruit organoleptic quality must remain an excellent

presentation of commercial product. No residues or deposits on the fruit, in which case it is very important to note in these highly sensitive crops such as cranberries aspects, vines and vegetables table.

As primary indication, use oasis primer based on the recommendations for early control of sunburn. Make subsequent applications to maintain effectiveness. These applications help reduce water consumption crops to reduce its temperature and perspiration. Oasis, acts stimulating the plant.

Oasis, indications for use

General Information

OASIS is a vegetable product of organic origin, which acts on the plant metabolism, reduces the effect of stress on period's vegetables. Oasis also contains a naturally occurring compound that acts as biostimulant.

Oasis When applied to plants, the result is a film visible translucent odorless and colorless. For best results sunscreen is important to achieve a good coverage and uniformity throughout the period of susceptibility to stress, accompanied by a sequence of application, as indicated on the label and data sheet.

Dose

Fruit Trees

Unless otherwise specified are in the instructions for use for each crop. Using Oasis, in dose 250g per hectare in 1000 liters of water.

Outdoor Vegetables

Using separate 250 g per ha water volume to be applied.

Timing of application

Oasis; can be used at any time from planting to harvest. No residues that complicate the harvested fruits. If in doubt, refer to the instructions on the label and data sheet.

Precautions: Oasis optimizes metabolism and response to stress conditions, which is likely to result in an early or delayed maturity.

Mixing Instructions

For tanks with agitator (conventional sprayers, electrostatic and air)

1. Add Oasis in the spray tank with recirculation water, remember shake vigorously. Spray tanks are preferred with strong agitation.
2. Add pesticide to the mixing tank, then the adjuvants, it is important to note that an optimal use of the product, requires the use of surfactants to achieve a better distribution on the blade. For this purpose, nonionic surfactants are recommended or organo-silicone. Additionally recommended applications to slightly acidic to neutral pH (pH 5.5 to 7.0).
3. Continue stirring until the tank is empty.
4. At the end of the application and flush the system with fresh water sprinklers, periodically check that the filter is clean and clean if necessary. Then discard the water used, according to local regulations.

Spray tank without agitator, such as hand sprayers and backpack (back)

The mixing sequence must be as follows:

1. Oasis Use at a dose of 7 gr/25 L of water. For sprayers hard to shake, mix in a container according to the instructions and then pour in the spray suspension.
2. Fill sprayer with 1/4 to 1/2 full. Add Oasis. Close the lid and shake vigorously, add the remaining water
3. Mix well by shaking the closed container vigorously for 30 seconds.
4. Add to the mix tank pesticides and after adjuvant (previously mentioned) then apply to the tank and stirring vigorously Oasis.
5. Add the remaining water to the tank and agitating the closed container for 30 seconds.
6. If the computer is still for 1 minute or more, shake the sprayer.

7. At the end of the application, spray until empty the tank and nozzles. If not empty, a coup d'air pressure (usually upending) and store in a cool place. It may reuse any excess mixture in two or three weeks at most. Rinse the sprayer and let dry before using again.

It is not recommended to reapply after heavy rains but prefer to apply unconditionally high humidity or rain. Applying just the foliage is dry.

Foliage dry

Application to wet foliage is not recommended for effectiveness and excessive runoff.

Under very hot and dry

Increasing the volume of water to improve deposition.

Spraying methods

Air blast sprayers, high pressure guns or more turbo tower, in all cases, for best results, use of low diameter nozzles and high pressures to produce a fine spray droplets form a uniform film on the surface of the treated plant.

A visual inspection of the deposition of the film (immediately after application) and the uniformity of coverage is vital for a good product performance.

Air blast sprayers, high pressure guns or more turbo tower, in all cases, for best results, use of low diameter nozzles and high pressures to produce a fine spray droplets form a uniform film on the surface of the treated plant.

The overhead sprinkler irrigation (pivots or other) and water cooling

Apply Oasis through any type of irrigation system, sprinkler, drip etc.; The important thing is to ensure uniformity and dose for modern irrigation.

Dose and comments

Crop	Dose	Recomendations
Pome, Stone Fruit, Nuts, Almonds, Olives, Tablegrapes Citrus, European Hazel, Olives	<p>Fruits In steps of 14-21 days at a dose of 250 gr / (volume of water applied): Ex: 250 gr/1000 L of water per hectare) In summer temperatures rise to seasonal.</p> <p>Vegetables; apply 250 gr/ha of OASIS™, starting immediately after transplantation of 2 leaves size onwards (stress reduction supporting post-transplant).</p>	<p style="text-align: center;">Pome</p> <p>All varieties; applications start with fruit size thumb, 6-8 applications, total dose 1,5 Kg/ ha.</p> <p style="text-align: center;">Cherry</p> <p>Special applications of post-harvest 2-3 separate applications every 14 days. With dose of 250 gr/ Water volume</p>
Berries, Strawberries, Raspberries, Blueberries Vegetables, Nurseries, Ornamentals	<p>Applications must be repeated every 21 days at the same dose up to two days prior to harvest, either lying or irrigation (ferti-irrigation).</p> <p>Berries and Tablegrapes</p> <p>Apply OASIS™ at intervals of 21 days up to one week before harvest. No need to exceed 250 gr/ Ha per application, but it is very important to excellent coverage. PRODUCT leaves no residue or cause spotting</p>	<p style="text-align: center;">Citrus, Olives, European hazelnut, Berries.</p> <p>First the start of application of high temperature period, the second and subsequent applications 250 gr / application volume (L) Ex: (600 L / ha), with intervals of 14-21 days from fruit curd Blueberries.</p>
Tablegrapes	<p>OASIS™ on fruit (not use or mix with NUFRESH) (prevention of sunburn and water stress on growth with berries), applications can be made from 3 mm berry size.</p> <p>Wheat: OASIS™ was applied at doses of 250 gr / ha since the beginning of tillering (Stage 2) by stage of wheat growth, according Zadoks, JC, Chang, TT, Konzak, CF (1974), OASIS™ may be tank mixed with herbicides, insecticides and fungicides, improving the effectiveness of treatments.</p>	<p style="text-align: center;">Table grapes</p> <p>Since fresh fruit curd (3 mm), 4-6 separate applications every 14-21 days, 250 gr / water volume applied per hectare</p>
Crops, corn, wheat, oilseed rape, sugar beet etc.	<p>Grain corn, sweet corn, corn seedlings: OASIS™ was applied at doses of 250 gr / Ha Applications should start from V4 emission continuing in silk (especially necessary step) pollination and grain fill separate applications every 21 days until toothed grain (R4).</p>	<p style="text-align: center;">Special Crops</p> <p>Solicit recommendations or technical department and review product label or data sheet</p>

Applications examples

NUTRIPROVE
Nutrición y protección vegetal



OASIS
CONTROL CLIMATE IN CROPS

OASIS



V/S

Traditional Kaolin's



NUTRIPROVE
Nutrición y protección vegetal



OASIS
CONTROL CLIMATE IN CROPS

Postharvest; washing Fruit and vegetable processing and industrialization or fresh market

Don't requires washing after harvest, the fruit no waste. **Oasis**™, Is available in bags or jars of 2.5 kg. It is important to discard the bags or empty containers at an approved according to local authority guidelines. **Oasis**™ is a registered trademark of Nutriprove S.A.

Summary user guide

Benefits

- Increased photosynthesis and carbohydrate availability
- Increased quality and crop yield
- Improved Brix / TSS
- Reduction of floral abortion
- Low fruit drop
- Reduced production alternation
- Increased yield of salable product
- Improved skin color of the fruit
- Improved internal quality of the fruit

Oasis keeps crops less susceptible to biotic and abiotic stress.

Nutriprove SA, researches and develops technologies for the management of environmental stress in fruit, vegetables and vineyards. The products developed by Nutriprove SA, are tools that allow farmers to profitably reduce losses in yield and quality of crops that are exposed to environmental conditions of heat, cold, radiation, or suffer water shortage. Combined biotic stress, such as excessive heat and excessive radiation is the cause of 50-60% of the yield losses in modern agriculture.

For more information visit:

www.nutriprove.cl

www.stressincrops.com

Phone: **0056-962636913**

Skype: **Nutriprove.cl**

NUTRIPROVE
Nutrición y protección vegetal



OASIS
CONTROL CLIMATE IN CROPS

NUTRIPROVE
Nutrición y protección vegetal



OASIS
CONTROL CLIMATE IN CROPS