

# AMALGEROL®

## SUN

### Biostimulant for UV & Heat Protection

▶ **Protecting Crops From Sun  
Stress & Damage**

- + Shields Plants from UV & Heat Stress
- + Enhances Pigment Content for Sun Tolerance
- + Boosts Antioxidant Capacity Under Stress
- + Reduces Fruit Damage & Losses
- + Supports Yield, Vitality & Marketability



**HECHENBICHLER**  
A BOOST FOR SOIL · PLANTS · ANIMALS

Protecting Crops From Sun Stress & Damage

# AMALGEROL® SUN

## Biostimulant for UV & Heat Protection



Local overheating of the fruit leads to oxidative burn visible as brown, or in severe cases, necrotic areas on ripe apples. These areas cause economic losses due to reduced storability.

### Securing marketable quality and yield with AMALGEROL SUN

As higher levels of UV radiation combined with extreme temperatures challenge agricultural systems, it is crucial to implement strategies that mitigate photodamage and support healthy plant and fruit development. AMALGEROL SUN protects sensitive cultures against intense solar radiation and local high temperatures, reducing oxidative damage and necrotic reactions up to 70 %. AMALGEROL SUN helps plants to cope with high-energy light stress, ensuring stable yields and a high proportion of marketable fruit even under temporal extreme radiation and without a visible particle film.



Sunburn of grape leads to browning and necrosis of berries and lusters, which ultimately destroys overall quality of the grapes. With AMALGEROL SUN, the necrotic damage can be reduced up to 70 % as compared to untreated grapes.

### Increase of protective pigments and phytohormones

AMALGEROL SUN stimulates the induction of natural plant defence mechanisms, including the synthesis of pigments that can absorb harmful UV and high-intensity radiation. By increasing these pigments, plants can better shield their photosynthetic apparatus, reducing the risk of photobleaching ensuring steady energy capture under harsh sunlight. The abundant energy is being converted to an increased sugar content (BRIX). The increased pigment content also allows a more uniform ripening and fruit colouring, making fruits more appealing to customers, thus allowing a higher marketable price.

### Enhanced antioxidant defence state

With AMALGEROL SUN, plants bolster their antioxidant arsenal to effectively neutralize reactive oxygen species (ROS) formed under stress conditions. Molecular scavenging and modulation of these highly aggressive molecules effectively protects the photosystem in the chloroplasts from photodamage. Additionally, it induces a systemic reaction of protein and antioxidant production throughout the plant. This allows the neutralization of free oxygen

radicals that would otherwise damage membranes and other cellular structures, leading to oxidative cell damage and necrosis. By fostering the production and accumulation of heat shock proteins (HSPs), AMALGEROL SUN ensures protein stability in cells under heat stress, ensuring the correct functioning of growth and defence processes. In parallel, AMALGEROL SUN helps with the modulation of stomatal closure mechanisms to minimize water loss. Mediated leaf angle adjustments enable an optimized light interception. These combined effects result in resilient plants, better equipped to withstand intense sunlight while maintaining vitality and yield potential.



With AMALGEROL SUN, the overall ripening behaviour of apples could be improved (lower panel), leading to a harvest of more evenly coloured apples and a better customer perception.

### Nutrient content

PFC 7: Fertilising Product blend, consisting of PFC 1(A)(II): liquid organic fertiliser and PFC 1(C)(I)(b)(ii): compound liquid inorganic macronutrient fertiliser

### NK [Ca-Mg-S] 2-3,3 [8,3-0,5-1]

2,0 % total nitrogen (N)  
1,8 % organic nitrogen (N<sub>org</sub>) from vegetal origin  
0,2 % ammoniacal nitrogen (NH<sub>4</sub>)  
3,3 % total potassium oxide (K<sub>2</sub>O)  
8,3 % total calcium oxide (CaO)  
0,5 % magnesium oxide (MgO), water soluble  
1,0 % sulphur trioxide (SO<sub>3</sub>), water soluble  
14 % organic carbon [C<sub>org</sub>]  
50 % dry matter  
C<sub>org</sub>/N = 7

**Specific gravity:** 1,29 kg/l

Contains 0,4 % phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>).

### Application

2–4 days before onset of UV/heat stress.

In prolonged periods of heat/UV stress, apply every 10 to 14 days.

Application rate: 2–4 l/ha per application.

Dilute in sufficient amount of water to allow good foliar coverage.

For further information, see the product label and our website.