



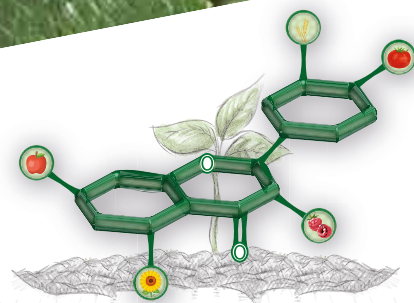
GRAPE

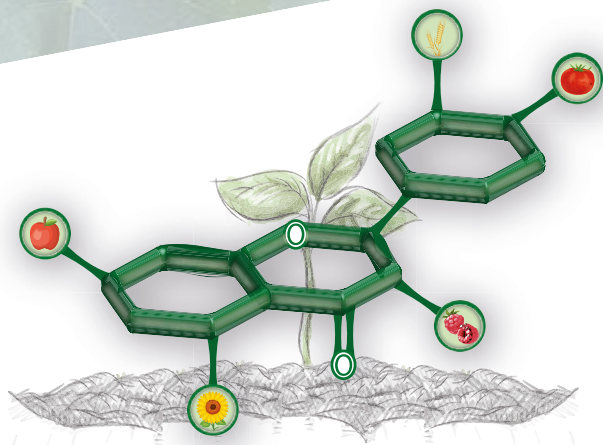


FLAVO PLANT

Plant conditioner

 **ARRAVIS**
Kereskedelmi és Szolgáltató Kft.





FLAVO PLANT

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Bactericide and fungicide plant conditioner from the extract of five plants (cinnamon, citrus fruits, nettle, rosemary and yarrow) with high flavonoid content and plant protection effect.

FLAVONOIDS:

Flavonoids are secondary metabolites of plants. They are chemically highly stable, large organic molecules of phenolic structure supporting the physiological processes of plants in many points.

Outstanding mechanism of action:

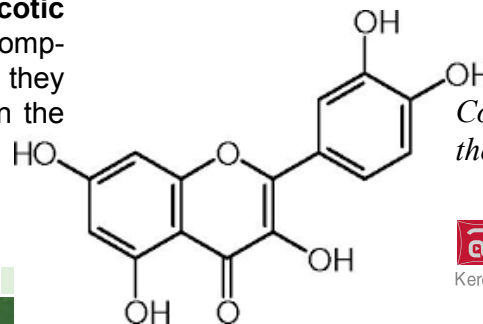
- the **antioxidant effect** of flavonoids decreases the risk of oxidative stress due to abiotic effects. It helps the maintenance of the equilibrium of the oxidant-antioxidant systems.
- flavonoids take part in the synthesis of the organic material in plants and in the regulation of **the energetic processes of photosynthesis**.
- flavonoids, as complexing agents help the harmonic nutrient supply of the plant by making possible the easier and faster penetration of nutrients through the waxy cuticle of the leaves. They positively influence the movement of nutrients within the plants. Their use, contrary to the non-degradable chelates, is environmentally sound.
- certain flavonoids have **antibiotic and antimycotic effect**. Due to their high redox potential, they promptly react and by the disruption of the cellular wall they eliminate the phytopathogenic agents settling on the epidermis.

The flavonoids in the Flavo Plant – in addition to the direct plant protection effect – basically determine the immune status of the plant resources via their complex physiological role. Furthermore, owing to the nettle and rosemary components, it has an additional repellent effect of many days against certain hymenopterae (greenfly, cherry fruit fly, spotted wing drosophila).

Upon the development of the Flavo Plant, the manufacturer focused on especially the flavonoids responsible for the bactericide and fungicide effect. As regards the flavonoid components responsible for the active plant protection effect, the active agent content is standardised, which is guaranteed by the production technology extended with the continuous biological impact assessment of the end product.

OTHER CHARACTERISTIC:

- It does not contain added emulsifier and mineral oil. The product is the aqueous solution of the active agents extracted from plants. Owing to the natural emulsification, it can be used also in flowering.
- Owing to the oils of citrus fruits, it spreads well on the surface of the leaf and dissolves well into the cuticle.
- The flavonoids responsible for plant protection effect are thermostable and photostable molecules resisting to rain and also irrigation, if dissolved into cuticle.
- Perfect mixing ability. Incompatibility in case of the combination of agents is unknown.



Constitutional formula of the quercetin

Flavo Plant may be used in every plant culture and phenophase without limitation.

Due to the components of the product, it does not have re-entry time and pre-harvest interval. It can be used also in the ripening and picking period, if the product is not used in a fermentation technology.

As regards application, it is not sensitive to direct sunlight and the environmental temperature and it does not exhibit searing and phytotoxic effect in case of the application of the recommended dose. Water amount is to be selected to ensure an even coverage on the leaf surface, therefore, the minimum recommended water quantity is 300 litres/hectare.

In the tank mix, the recommended minimum concentration is 1.5‰, and the critical concentration is 1‰.

By mixing with other preparation, the application conditions of the other components have to be considered. In case of other agents of contact activity and nitrogen containing foliar fertilisers - due to the synergetic effect - searing may be more intense.

In case of the combination of agents, the natural adhesion facilitating effect of the Flavo Plant must be considered, therefore,

- it is the adjuvant of foliar fertilisers and other agent of contact activity, therefore, efficient biological effect can be achieved even in the minimally recommended doses.
- there is no need to apply other adhesion facilitating agents, instead, they are expressly contraindicated.
- other preparations may have an effect on the leaf surface for a longer time and become more resistant against wash-off.
- the number of treatment of the crops can be decreased.

Between the treatments, there must be at least 14 days.

Due to the stability of its active agent and the wax contamination - among normal circumstances - treatment within shorter intervals is not justified. The rain resistance of the Flavo Plant is very good, if after treatment two hours lapse and its full drying on the leaf surface takes place.



The agent can be used with the majority of the other agents. If tank mix is made, ensure to have the pH of the spray mixture in the acidic range. Mixing with agents of alkali optimum or the mixture of the Flavo Plant into alkali tank mixtures is not recommended. Furthermore, it is not recommended to apply Flavo Plant in tank mixture containing biopreparates containing living organisms, foliar fertilisers and compost tea. No incompatibility and precipitation with other agents was observed, however, it is recommended to perform a mixing test before use.

FLAVO PLANT

ADVANTAGES OF THE FLAVO PLANT IN GRAPE



- Permanent contact protection against powdery mildew and botrytis infections. With its stand-alone use, the infection can be prevented and the already formed infection can be terminated (eradication). Due to the powerful wax contamination and the stable active agents, the duration of its effect is 2-3 weeks.
- Gentle surface protection also in case of flourishing. If applied upon flourishing, the binding of grapes to the plant is more homogeneous due to the non-specific antioxidant effect, therefore, the bunch protection is better and the ripening is more homogeneous.
- With its use, the plant nourishment via foliage can be increased in addition to the increase of the efficiency of the partner active agent in case of the combination of agents.
- There is no re-entry time and pre-harvest interval. With a treatment of table grape right before picking, the storage life and shelf-life can be increased.
- Biological protection facilitating (and not hindering) the metabolic capacity of the plant, more favourable inner content and higher quality.

RECOMMENDED TECHNOLOGY:

Time of treatments	Pathogens	Dose
in case of flourishing	By itself, to prevent botrytis and powdery mildew infections. For the more homogeneous grape binding, to protect the damage by birds and for plant conditioning.	1l/ha
from the elongation until the closure of the bunch	To prevent powdery mildew infection and to treat the already formed symptoms. (To keep away certain pests: mites, bugs etc., the addition of 2-3 kg sulphur is recommended in this period.) To prevent and treat downy mildew infection, by mixing it with half dose of copper preparation. Number of recommended treatments: 3	1l/ha
from the closure of bunch until vintage	Separately, for the prevention of powdery mildew and botrytis. The treatment in the first half of August should be completed with 2-3 kg of sulphur to keep away or to remove mites.	1l/ha



In case of the mechanical injury of the vegetation (due to hailstorm or sand blow), an immediate single treatment is recommended to close the gates of infection and to decrease stress, with a dose of 1 l/ha. The program-like defence should also be performed right after the phytotechnical operations to facilitate the best possible coverage and the healing of the injured surfaces. If no absorbing preparation is used, the treatment attached to the closure of bunch should be performed, when an appropriate covering can be formed on the fruit.

The maximum number of treatments during a single vegetation cycle: 5

Between the treatments, there must be at least 14 days to let the wax layer appropriately regenerate.

In case of wine grape, before the start of noble rotting, or 14 days before vintage, the protection must be stopped. Flavo Plant facilitates the efficiency of other preparations. If applied together with other agents or if mixed with nutrients, the use of the doses in the manuals of the combined agent is recommended to avoid phytotoxic effect. In case of its use, there is no need to apply adhesion facilitating agent.

The recommended water quantity for a hectare is 300-600 l. Lower quantity is recommended only if the full coverage can be ensured. Attention! The product is susceptible to coverage.

Ensure the appropriate setup of the sprayer and the use of the sufficient amount of water for the full coverage.



FLAVO PLANT

5+2 arguments why to choose Flavo Plant for plant protection technologies

1. Standardised active agent content: effective plant protection effect against the ectoparasite fungi and bacteria.

2. Long-term effect: The incorporation of the chemically and physically (heat and light) stable active agents into the cuticle is ensured. Measured dura-

3. Cost efficiency:

- The use of adhesion facilitating agents can be omitted.
- The use of copper and sulphur can be omitted or decreased by at least 50%. In this way, by using the Flavo Plant, you can defend even with the decreasing amount of copper active agent.
- The amount spent on foliar fertilisers can be decreased. Owing to the natural complexing characteristics of the flavonoids, it facilitates the nutrient absorption of plants. It is sufficient to apply the lower dose of foliar fertilisers or to buy a simple ion or mineral salt containing foliar fertiliser.
- The amount of the used pesticides can be decreased. With the Flavo Plant, the chemical plant protection can be replaced depending on the plant culture and phenophase. Due to the more and more narrowing chemical solutions, one should think about it not only as an opportunity, but also as a necessity aiming the sustainability of one's farming.

4. It can be used during flourishing: it is an agent of contact effect, which increases the fertilisation of plants in addition to its plant protection

5. 100% natural constituents without any poisonous effect on the environment and the user.

+1 Re-entry time and pre-harvest interval: 0 days.

+2 It is a preparation which can be used in ecological farming as well, without an alternative.

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