

We Grow Soil.

The best performance, **naturally.**



PHC

Plant Health Cure

Hereby a short manual for the use of PHC products during the season. For more detailed information, cultivation programmes or product sheets, please refer to our website www.phc.eu.

For further questions or advice, we would like to refer you to Johan Middelkamp, our cultivation advisor.

A man with short, grey hair and glasses, wearing a light blue button-down shirt and dark trousers, is kneeling in a field of harvested onions. He is holding a single onion bulb with its roots and green stalks. The field is filled with harvested onions, and the background shows a line of trees under a cloudy sky. The man's shirt has a small logo on the pocket that reads "PHC" and "Cultivation".

Johan Middelkamp
j.middelkamp@phc.eu
+31 6 - 23 60 41 30

General information

- Because of the UV-sensitivity mycorrhiza has to be processed within one day. If you follow our approach, the mycorrhiza is sufficiently active for at least 6-8 years;
- Stop deep intensive tillage (deeper than 15 cm). Only in case of severe compaction lift the top layer of soil with a paragrubber.
- The use of Brassica's as green manure exchanging for mixtures with a wide selection.
- Keeping the plots green.
- The use of artificial fertilizer should be minimized, and preferably stopped altogether.

Fertilization

When phasing out fertilizer, we recommend that the soil should be gradually adjusted. This can be done by spreading up to 40% fertilizer in the first year and supplementing it with OPF Granulate (if necessary animal manure).

If this does not apply because there is already a lot of fertilizing with animal fertilizer, it is possible to fertilize directly with OPF Granulate.

Potatoes.

Before planting potatoes

To give a boost to the soil life we advise to sprinkle TerraPulse (500 kg/ha).

When planting potatoes

Apply Mycorgran 2.0 under the potatoes (2 kg/ha). Spray Fulvic 25 (20 l/ha). After 8 weeks repeat the spraying with Fulvic 25 (preferably just before a rain-shower).

If you choose liquid

Spray VA-PWI (0.5 kg/ha) in combination with MooR (30 l/ha) under the tuber. After 8 weeks, spray Fulvic 25 (10 l/ha).

Fertilization

We recommend fertilization with OPF granulate 11-0-5. This can possibly be used in combination with animal fertilizer.

Leaf fertilization

For each Phytoftora spraying, we recommend spraying OPF 7-2-3 (1 l/ha) and also spray Fulvic 25 (0.5 l/ha) with it. Alternatively, 2 litres of OPF 7-2-3 can be sprayed instead of 1 l/ha.

When stress, heat or drought is expected, it makes sense to increase the dosage to 5 litres of OPF 7-2-3 with 1 litre of Fulvic 25.

During the growing season spray 3 x Natural Green (Ca/Mg fertilizer) (1 kg/ha at a time).



Onions.

Before sowing onions

To give a boost to the soil life or to get it going, we advise to sprinkle TerraPulse (500 kg/ha).

When sowing onions

Apply Mycorgran 2.0 under the seed (2 kg/ha) and spray Fulvic 25 (20 l/ha).

If you choose liquid

Spray VA-PWI (0.5 kg/ha) in combination with MooR (30 l/ha) under the seed. After 8 weeks, spray Fulvic 25 (10 l/ha).

Full-field spraying with VA-PWI (1 kg/ha) + MooR (20 l/ha). Apply this immediately. At the beginning of the bulbs, spray again with Fulvic 25 (20 l/ha).

Fertilization

We recommend fertilization with OPF granulate 11-0-5. This can possibly be used in combination with animal fertilizer.

From the beginning of bulging, spray OPF 7-2-3 (5 l/ha) + Natural Green (Ca/Mg fertilizer) once every 3 weeks (1 kg/ha). It is recommended to use Yuccah as a wetting agent (1-2 l/ha).



Grains.

Application of root biology

Full-field spraying before sowing; VA-PWI (1 kg/ha) with MooR (30 l/ha). If fine-grain seed (fijnbakzaad) are also present, we advise applying Mycorgran 2.0 (1.5 kg/ha) shortly before or after sowing in combination with Fulvic 25 (30 l/ha).

With spoke wheel injector: Inject VA-PWI (0.5 kg/ha) + MooR (30 l/ha).

Fertilization

We recommend fertilization with OPF granulate 11-0-5. This can possibly be used in combination with animal fertilizer.

The amino acids present in OPF Granulate play an important role in the resilience and photosynthesis of the grain.

Minimize fertilizer application; only if really necessary a urea without nitrification inhibitor!



Sugar beets.

Application of root biology

Sugar beets are not mycorrhizing. They do use root bacteria. That is why we recommend spraying with MooR (30 l/ha) immediately before or after sowing.

Fertilization

We recommend fertilization with OPF granulate 11-0-5. This can possibly be used in combination with animal fertilizer.

Leaf fertilization

From the closing of the rows, 1 x per 3 weeks OPF 7-2-3 (5 l/ha).

During the growing season, spray 3 x Natural Green (Ca/Mg fertilizer) (1 kg/ha at a time).



Hemp.

Application of root biology

Full-field spraying before sowing; VA-PWI (1 kg/ha)
+ MooR (30 l/ha).

If fine-grain seed (fijnbakzaad) is also present,
we recommend Mycorgran 2.0 (1.5 kg/ha) when
sowing in combination with Fulvic 25 (30 l/ha).

With spoke wheel injector: Inject VA-PWI (0.5 kg/ha)
+ MooR (30 l/ha).

Fertilization

We recommend fertilization with OPF granulate
11-0-5. This can possibly be used in combination
with animal fertilizer.



Corn.

Before sowing corn

To give a boost to the soil life or to get it going, we advise to sprinkle TerraPulse (500 kg/ha).

Application of root biology

Full-field spraying before sowing; VA-PWI (1 kg/ha) + MooR (30 l/ha).

When sowing corn

Place Mycorgran 2.0 with granulate under the seed (2 kg/ha) and spray Fulvic 25, shortly before or after sowing (30 l/ha).

If you choose liquid

Spray VA-PWI (0.5 kg/ha) in combination with MooR (20 l/ha) under the seed.

Fertilization

We recommend fertilization with OPF granulate as a supplement to the animal manure given at the base.

The amino acids present and the range of trace elements in the OPF play an important role in photosynthesis and thus the resilience of the corn.

Minimize fertilizer application; only if really necessary a Urea without urease inhibitor!

Maintain the same amount of fertilizer in the first year as usual!



Gras.

Before sowing grass

To give a boost to the soil life or to get it going, we advise to sprinkle TerraPulse (500 kg/ha).

Application of root biology

When it is a new sowing:

- Mix granulate through the grass seed, Mycorgran 2.0 (1.5 kg/ha). Make sure to mix well.
- Spray full field before sowing, process immediately; VA-PWI (0.75 kg/ha) + MooR (30 l/ha)

When it is an existing grassland:

- Inject with spoke wheel injector: Inject VA-PWI (0.4 kg/ha) with MooR (30 l/ha).

Fertilization

In addition to animal manure, as usual, we recommend using OPF granulate 11-0-5 as supplementary fertilizer. The release of OPF is gradual (50% in the first month, and the other 50% in the following 2 months).

The amino acids in the OPF ensure optimal photosynthesis, which improves mineral absorption. This ensures a better quality grass.

Minimize fertilizer application or even better, stop it altogether. If something is still needed, only use Urea (without urease inhibitor!).

Maintain the same amount of fertilizer in the first year as usual!



Carrots.

Before sowing carrots

To give a boost to the soil life or to get it going, we advise to sprinkle TerraPulse (500 kg/ha).

Application of root biology

Just before or after sowing: spray full-field MooR (30 l/ha), repeat this after 8 weeks (20 l/ha).

Fertilization

We advise to fertilize with OPF granulate as a basic fertilizer, possibly supplemented with animal manure.

Leaf fertilization

From that moment the foliage is about 20 cm high, every two weeks a spraying with 5 l/ha OPF liquid 7-2-3 + Natural Green (1 kg/ha, this 3 times spread over the season) + 1 litre Fulvic 25. This is how you keep the foliage strong and healthy so that mildew and Alternaria hardly get a chance.

For non-Bio, the Pro-Act (3 x 150 gr/ha) is also a very strong product for the benefit of plant health.

Maintain the same amount of fertilizer in the first year as usual!



Green manures.

Green manure in regenerative agriculture

This green manure will have to be a mixture of hardy species. Preferably all plant species are present (screen-, butterfly-, and cruciferous grasses plus legumes).

A great diversity above the ground also gives a great diversity in the soil. This creates balance.

Brassica breaks down mycorrhiza. Therefore we advise never to use more than 8% brassica (the less brassica, the better).

Mycorgran 2.0 (1.5 kg/ha) can be added to these mixtures. This way you get into the ground without extra work during sowing. When sowing and in early spring, additional fertiliser can be added for the succeeding crop.

When mulching, a fermentate is injected with Fulvic 25 and OPF. It is then milled 5 cm deep with a knife cutter. After 2-3 weeks you can sow or plant.

Note: Sowing green manures is a good time to start adding root biology. This can develop on the green manure so that the next main crop can immediately benefit from it.

ProAct.

Proact is a soluble biostimulant that naturally stimulates different plant processes to improve development.

Application

Seed potatoes

150 grams/ha if the foliage is about 10 cm high
(BBCH scheme 11)

150 grams/ha at the start of tuber setting
(BBCH scheme 40)

Ware and process potatoes

150 grams/ha if the foliage is approx. 10 cm high
(BBCH scheme 11)

150 grams/ha at the start of flowering
(BBCH scheme 61)

150 gram/ha 14-21 days after the previous spraying
(BBCH 73) (some varieties at the beginning of the
berry formation)

Onions

150 gram/ha at the start of bulb formation
150 grams/ha when the foliage lies down
(can be combined with MH)

Grains

150 gram/ha when coming into ear
150 gram/ha at start of ripening





Plant Health Cure B.V.

Postbus 103

5060 AC Oisterwijk (NL)

+31 (0)13 7 200 300

info@phc.eu

www.phc.eu