

**QULTIVO concentrate Organo-mineral liquid fertilizer**

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**Fertiliser Application and Storage Manual**

**SCOPE OF APPLICATION**

“QULTIVO koncentrat” is an organic and mineral fertiliser containing humus compounds, amino acids and necessary micro- and macroelements. It is recommended for use in small- and large-area crops of agricultural, fruit, vegetable and ornamental plants, on field and under covers, on all types of soils. It can also be applied to lawns. Its soil-applied effect consists in the increasing of the soil water and sorption capacity and providing plants with necessary nutritional components. In case of foliar application, the fertiliser has an effect of improving the nutrition of plants with macro- and microelements, especially under stress conditions and of abiotic nature. The “QULTIVO koncentrat” fertiliser is used to improve the growth and yielding of plants as well as the yield quality. It shortens the duration of processing of plant residues after harvesting and transforms them into accessible forms of nutritional components for plants

**DOSES, TIMEFRAME AND APPLICATION**

**AGRICULTURAL PLANTS**

**Soil application**

**1. timeframe – autumn**, after harvests, before using post-harvest or pre-sowing cropping.

The amount of fertiliser applied per 1 ha depends on the amount of the post-harvest plant residues. Use 1 litre of fertiliser per each ton of post-harvest residues. Working liquid expenditure - 200 liters/ha.

If, after the harvest, 1 hectare of field contains:

- 1 ton of plant residue, use 1 litre of fertiliser per 200 litres of water per 1 ha.
- 2 tons of plant residue, use 2 litres of fertiliser per 200 litres of water per 1 ha.
- 3 tons of plant residue, use 3 litres of fertiliser per 200 litres of water per 1 ha.
- 10 tons of plant residue, use 10 litres of fertiliser per 200 litres of water per 1 ha.

It is recommended to add 10 kg of urea per 1 ton of residue to the resultant mixture

Distribute the fertiliser on the soil surface by means of a sprayer or a cesspool emptier. It is recommended to carry out the above operation immediately after rain falls. If there are no rainfalls, it is purposeful to increase the amount of water to 400 litres per 1 ha.

**2. Timeframe - early spring**

Up to 20 days before sowing/planting of plants depending on the soil quality, use 1 to 5 litres of fertiliser diluted in 200 litres of water.

**Foliar application by spraying**

Dilute the fertiliser in the amount from 0.5 litre in an appropriate amount of water adapted to the plant crop (table). The intervals between sprayings should be 14 days. Carry out the sprayings when the air temperature is 5-25°C. It is recommended to carry out the sprayings the morning or evening when the wind force is small.

QULTIVO FERTILISER APPLICATION METHOD OR GROUP OF PLANTS		FERTILISER DOSE	Number of treatments	Amount of water (l/ha)
Soil-applied in autumn	After harvests in order to properly decompose the plant residues left on the field	Depending on the biomass left on the field - 1 litre of fertiliser per 1 ton of residues	1	200
Soil-applied in spring	Soil activation, recultivation	2 litres / ha	1	250
Grains	Foliar sprayings	1 litre / ha	1 - 3	200 - 250

**TREATMENT OF SEEDS AND SEEDLINGS**

**Seeds**

dilute 1 litre of fertiliser in 10 litres of water and spray 1 ton of seeds or soak for 30-60 minutes, then dry up and sow

**Seedlings**

dilute 0,25 litre of fertiliser in 15 litres of water, soak seedling roots for 6 hours

**FRUIT PLANTS**

**Soil-applied fertilisation**

**Before planting of plants:**

3-4 weeks before planting of trees/bushes, use the water-diluted 0.5% fertiliser concentrate. Pour the solution evenly over the entire soil surface or over 1-1.5 m wide strips in which the plants will be planted, using 2 liters of the fertiliser concentrate per ha and fill up with water to 400 liters (20 ml of fertiliser filled up to 4 liters of water per 100 m<sup>2</sup>). Then mix it with the surface layer of the soil to a depth of about 10 cm. .

**In orchards/plantations:**

In early spring, before vegetation starts, pour a 0.5% fertiliser solution around trees/bushes or in 1-15.5 m wide strips along rows of plants. Use 2 liters of fertiliser per 1 ha, filled up with water to 400 liters (20 ml of fertiliser filled up to 4 liters of water per 100 m<sup>2</sup>).

**Foliar fertilisation**

**Orchards/plantations:**

Carry out sprayings 3-4 times during a season, starting in the bud swelling/bursting phase and then in the pink/white bud phase, immediately after blooming and 3-4 weeks after the fall of flower petals, in a dose of 1 liter of fertiliser per ha, using 400 liters of water. Do the sprayings especially in stress conditions.

**ORNAMENTAL PLANTS**

**Before planting of plants in soil:**

In early spring, about 3-5 days before planting of plants, distribute the fertiliser evenly over the soil surface at planting spots with a 0.5 % concentration, using 2 litres of the Qultivo concentrate per 400 liters of water per 1 ha (20 ml of fertiliser filled up to 4 liters of water per 100 m<sup>2</sup>). Then mix it to a depth of about 10 cm .

**Topdressing fertilisation**

**Plants grown in soil:**

Young plants or plants with weak growth and sensitive plants should be fertilised with a 0.25 % Qultivo concentrate solution, using 1 liter of the Qultivo concentrate per 400 liters of water per

1 ha (10 ml of fertiliser filled up to 4 liters of water per 100 m<sup>2</sup>). Older plants or plants with intense growth and sensitive plants should be fertilised with a 0.25 % Qultivo concentrate solution, using 2 liters of the Qultivo concentrate per 400 liters of water per 1 ha (20 ml of fertiliser filled up to 4 liters of water per 100 m<sup>2</sup>).

Water plants with the prepared solution up to 3 times during the vegetative season, starting after the first buds or leaves occur, then before blooming and after blooming.

**Pot and balcony plants:**

During the period from April to October with intervals of 14-21 days, depending on the requirements of plants, water the plants with a 0.2-0.3% fertiliser solution (2-3 ml per 1 liter of water). In the winter season, the home plants should be fertilised once a month with a 0.25% fertiliser solution (2.5 ml per 1 liter of water).

**Foliar application**

In the vegetative growth phase, apply a 0.25 % solution - 2.5 ml of the Qultivo concentrate per 1 liter of water by spraying 3-4 times per season, especially in (stress) conditions limiting the growth of plants.

**LAWNS**

**Before establishing a lawn**

In early spring or autumn, about 3-5 days before establishing a lawn, distribute the fertiliser evenly over the soil surface with a 0.5% concentration, using 2 liters of the Qultivo concentrate per 400 liters of water per 1 ha (20 ml of fertiliser filled up to 4 liters of water per 100 m<sup>2</sup>). Then mix it to a depth of about 10 cm, make even and sow grass.

**Topdressing fertilisation**

During the period from April to October, use a 0.5% concentration fertiliser, using 2 liters of the Qultivo concentrate per 400 liters of water per 1 ha (20 ml of fertiliser filled up to 4 liters of water per 100 m<sup>2</sup>), once a month.

It is best to apply a Qultivo concentrate solution after rain. If it is dry and it has not rained for a long time, water the lawn first and then apply the Qultivo concentrate solution.

**Foliar fertilisation**

During the vegetative growth period, apply 3-4 times in a season by spraying a 0.25 % concentration solution, using 0.5 litre of the Qultivo concentrate per 200 liters of water per 1 ha (5 ml of fertiliser filled up to 2 liters of water per 100 m<sup>2</sup>).

**VEGETABLE PLANTS**

**Before growing in soil**

In early spring, about 5-10 days before sowing seeds/planting of vegetable seedlings, distribute the fertiliser evenly over the soil surface with a 0,5% concentration:

- for large-scale, crops 2 liters of the Qultivo concentrate per 400 liters of water per 1 ha,
- for small-scale crops, using about 2 litres of solution per an area of 100 m<sup>2</sup> - 100 ml of the Qultivo concentrate per 20 liters of water and mix it with soil to a depth of about 10 cm

**Topdressing fertilisation**

**Vegetables grown in soil:**

Carry out the first plant fertilisation treatments (after sprouting, after the development of first true leaves and after rooting of the seedlings) with a 0.25% concentration fertiliser:

- for large-scale crops 0.5 litres of the Qultivo concentrate per 200 liters of water per 1 ha,
- for small-scale crops, using about 2 liters of solution per an area of 100 m<sup>2</sup> - 50 ml of the Qultivo concentrate per 20 liters of water.

Fertilise older and more intensely growing plants with a 0.5% concentration solution:

- for large-scale crops 1 litre of the Qultivo concentrate per 200 liters of water per 1 ha,
- for small-scale crops, using about 2 liters of solution per an area of 100 m<sup>2</sup> - 100 ml of the Qultivo concentrate per 20 litres of water.

During the vegetation period, water plants every 14 -21 days from the start of vegetation to the first harvests

- for large-scale crops 1 litre of the Qultivo concentrate per 200 liters of water per 1 ha,
- for small-scale crops, using about 2 litres of solution per an area of 100 m<sup>2</sup> - 100 ml of the Qultivo concentrate per 20 liters of water.

**Vegetables grown under covers:**

During the vegetative growth and fruiting, fertilise plants with 7-14 day-long intervals. Depending on the requirements of a particular plant, the plants should be treated with a 0.25% fertiliser solution - 0.5 liter of the Qultivo concentrate per 200 liters of water per 1 ha (2 liters of the solution per 100 m<sup>2</sup>).

Species with intense growth (tomato, cucumber, pepper) should be treated with a higher concentration fertiliser solution - 1 litre of the Qultivo concentrate per 200 liters of water per 1 ha (2 litres of the solution per 100 m<sup>2</sup>).

**Foliar fertilisation**

The fertiliser may be used several times during the growing in the form of spraying, 2-4 times per season at a concentration of 0.25% - 0.5 litre of the Qultivo concentrate per 200 liters of water per 1 ha (2 litres of solution per 100 m<sup>2</sup>).

**Carry out sprayings when the air temperature is 5-25 °C.**

**It is recommended to carry out the sprayings in the morning or evening when the wind force is small.**

**WORKING LIQUID PREPARATION**

- Shake the container well before opening it and measure out the necessary quantity of the fertiliser.
- Partly fill the sprayer container with water (if possible, use warm water at a temperature of 20-25 °C) and pour a measured amount of the fertiliser with the stirrer on
- While stirring, fill up the container to a necessary volume.
- Use the prepared working liquid immediately after it is made
- You may use the fertiliser jointly with plant protection products, after they have gone through a miscibility test as a result of which no deposit or other insoluble element is formed.

**STORAGE**

- Store in a cool and dark place, in genuine packages.
- Shelf life 2 years.
- Unused packages containing fertiliser with the shelf life expired should be disposed

**COMMENTS**

- Do not use on frozen, flooded, water-saturated, snow-covered soils and during rainfall. Frozen soil is not considered to be soil that thaws at least on the surface during the day.
- Do not exceed the recommended doses.

**PRECAUTIONS**

- When working with fertilizer, observe the generally applicable hygiene and safety rules.
- Use protective gloves.
- Do not eat, keep out of the reach of children.
- If eyes are contaminated, rinse them with plenty of clean water
- and consult a physician if necessary.