

Grodno
NTP-Sintez



LLC «NTP-Sintez»

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LLC «NTP-Sintez»



KompleMet is highly effective liquid nutrient complexes for plants that have no direct analogues in terms of the ratio and form of the nutrient elements they contain. To date, more than 50 brands of fertilizers have been registered under the trade name KompleMet:

- for individual crops or their groups - balanced in microelement composition, taking into account the biological characteristics of plants and their needs for certain nutrients;
- with a separate trace element - for crops that have increased requirements for a particular element;
- with the content of macronutrients - to supplement the root nutrition for the main nutrient elements;
- organomineral - fertilizers with a growth-stimulating effect.

Complex fertilizers "KompleMet" fully comply with the intensive technologies of modern agricultural production and are successfully used at agro-industrial enterprises, farms and personal household plots. Nutrient elements (metals) in their composition are contained in the form of complex compounds - chelates, which have an increased digestibility compared to free metal ions. Qualified specialists and a wide range of brands will allow you to choose an effective application program, taking into account the specifics of plant nutrition, soil and climatic conditions and the planned yield.

Fertilizers comply with the requirements of the technical regulation of the Republic of Belarus "Mineral fertilizers. Safety", are produced in accordance with the quality management system GOST R ISO 9001-2015.

Fertilizers are registered in the Republic of Belarus, the Russian Federation, the Republic of Moldova, Ukraine, the Republic of Armenia, the Republic of Uzbekistan, the Republic of Turkey, Turkmenistan and the Republic of Kazakhstan.

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KOMPIOMET FERTILIZERS FOR INDIVIDUAL CROPS AND THEIR GROUPS



Brand: RAPESEED

with a high content of manganese and sulfur for rapeseed, sunflower and other oilseeds.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|
| | | | | | | not less than | | | |
| 20 | 2,0 | 12 | 7,0 | 0,15 | 0,06 | 1,0 | 83 | 57 | 35 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: GH (Garden-Horticulture)

with a combination of microelements with an optimal ratio for vegetable, fruit, ornamental plants.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|
| | | | | | | not less than | | | |
| 10 | 9,0 | 15 | 4,5 | 0,15 | 0,05 | 5,5 | 79 | 83 | 14 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: POTATO

With a predominant content of manganese and copper, which are most needed by potatoes.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|
| | | | | | | not less than | | | |
| 15 | 12 | 8,0 | 7,0 | 0,15 | 0,05 | 9,8 | 83 | 99 | 14 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: TOMATOES

With a balanced complex of microelements, necessary for tomato, pepper, eggplant, physalis.

The composition, g/l (g/dm³):

| Fe* | Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|-----|-----|-----|-----|-----|-----|------|--------------------|-------------------------------|------------------|-----------------|
| | | | | | | | not less than | | | |
| 7,7 | 5,9 | 5,6 | 8,4 | 2,8 | 0,1 | 0,03 | 3,7 | 87 | 79 | 23 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: CUCUMBERS

With a balanced complex of microelements for cucumbers and other cucurbits.

The composition, g/l (g/dm³):

| Fe* | Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|-----|-----|-----|-----|-----|-----|------|--------------------|-------------------------------|------------------|-----------------|
| | | | | | | | not less than | | | |
| 10 | 4,6 | 4,0 | 7,8 | 5,0 | 0,1 | 0,03 | 3,2 | 91 | 78 | 25 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: GRAIN

With a balanced ratio of manganese and copper, the most important for winter and spring grains.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|
| | | | | | | not less than | | | |
| 20 | 5,0 | 15 | 4,5 | 0,15 | 0,05 | 9,2 | 96 | 105 | 14 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: **CORN**

With a high concentration of zinc, the introduction of which is most effective for corn.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|---------------|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|
| not less than | | | | | | | | | |
| 10 | 2,5 | 30 | 4,0 | 0,15 | 0,05 | 2,4 | 97 | 85 | 14 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: **BEET**

With an increased amount of manganese, necessary for sugar, fodder and table beet.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|---------------|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|
| not less than | | | | | | | | | |
| 25 | 4,0 | 6,0 | 7,0 | 0,15 | 0,05 | 11 | 87 | 106 | 14 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: **FLAX**

With an increased content of zinc, in balance with manganese and copper, which positively affect the yield of flax.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|---------------|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|
| not less than | | | | | | | | | |
| 10 | 5,0 | 25 | 7,0 | 0,15 | 0,05 | 3,9 | 92 | 85 | 14 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: **LEGUMES**

with a significant content of molybdenum and cobalt, the presence of which is demanding for grain legumes and legume grasses.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|---------------|-----|-----|-----|-----|-----|--------------------|-------------------------------|------------------|-----------------|
| not less than | | | | | | | | | |
| 15 | 2,0 | 5,0 | 8,0 | 15 | 3,0 | 6,8 | 83 | 103 | 14 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: **BLUEBERRY**

Fertilizer complex, represented by a concentrate of microelements in the form of chelates, balanced with macroelements in the optimal ratio to achieve high growth rates and fruiting of blueberries.

The composition, g/l (g/dm³):

| MgO* | Fe* | Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|---------------|---------------|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|
| not less than | not less than | | | | | | | | | | |
| 6,2 | 7,5 | 2,5 | 2,2 | 3,7 | 1,1 | 0,03 | 0,01 | 3,7 | 75 | 62 | 16 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: **COTTON**

A complex with a combination of microelements necessary for the growth and development of cotton.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|---------------|-----|-----|----|------|------|--------------------|-------------------------------|------------------|-----------------|
| not less than | | | | | | | | | |
| 10 | 5,0 | 25 | 10 | 0,15 | 0,05 | 70 | 90 | 80 | 14 |

* - element in a chelated compound

Packing: 20, 1000 l.



Brand: RESOURCE

with a high content of iron, manganese, copper, zinc and molybdenum for intensive tillering of grain crops.

The composition, g/l (g/dm³):

| Fe* | Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|-----|-----|-----|-----|-----|-----|------|--------------------|-------------------------------|------------------|-----------------|
| | | | | | | | not less than | | | |
| 5,6 | 14 | 5,6 | 9,0 | 0,5 | 0,7 | 0,05 | 14 | 100 | 120 | 23 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: MANGANESE

With a high concentration of chelated manganese for adjusting the manganese nutrition of plants.

The composition, g/l (g/dm³):

| Mn* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ |
|---------------|--------------------|-------------------------------|------------------|-----------------|
| not less than | | | | |
| 30 | 12 | 80 | 103 | 14 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.

Комплет FERTILIZERS WITH A SEPARATE MICROELEMENT



Brand: FERRUM+ZINC

Combination of iron chelate and zinc chelate for cultures sensitive to their deficiency.

The composition, g/l (g/dm³):

| Fe* | Zn* | P ₂ O ₅ | K ₂ O | SO ₄ |
|-----|-----|-------------------------------|------------------|-----------------|
| | | not less than | | |
| 15 | 15 | 73 | 41 | 25 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: COPPER

With a high concentration of chelated copper for crops with increased requirements for its presence.

The composition, g/l (g/dm³):

| Cu* | N _{total} | P ₂ O ₅ | K ₂ O |
|---------------|--------------------|-------------------------------|------------------|
| not less than | | | |
| 30 | 14 | 67 | 88 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: FERRUM

With a high concentration of chelated iron for crops and ornamental plants.

The composition, g/l (g/dm³):

| Fe* | P ₂ O ₅ | K ₂ O | SO ₄ |
|---------------|-------------------------------|------------------|-----------------|
| not less than | | | |
| 30 | 80 | 39 | 51 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: ZINC

With a high concentration of chelated zinc for crops the most responsive to its introduction.

The composition, g/l (g/dm³):

| Zn* | P ₂ O ₅ | K ₂ O |
|---------------|-------------------------------|------------------|
| not less than | | |
| 30 | 67 | 43 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: **MOLYBDENUM**

With a high concentration of chelated molybdenum for crops acutely responsive to its deficiency.

The composition, g/l (g/dm³):

| Mo* | N _{total} | P ₂ O ₅ | K ₂ O |
|-----|--------------------|-------------------------------|------------------|
| | not less than | | |
| 30 | 3,8 | 44 | 58 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: **PK2**

Combination of organic phosphorus with an increased amount of potassium.

The composition, g/l (g/dm³):

| P ₂ O ₅ | K ₂ O |
|-------------------------------|------------------|
| not less than | |
| 210 | 280 |

Packing: 2, 20, 1000 l.



Brand: **BORON**

With a high concentration of organomineral boron for crops in need of its increased amount.

The composition, g/l (g/dm³):

| B | N _{total} |
|-----|--------------------|
| | not less than |
| 150 | 65 |

Packing: 400 ml, 2, 20, 1000 l.

КОМПЛЕМЕТ FERTILIZERS WITH A SEPARATE MESOELEMENT



Brand: **CALCIUM**

Contains the maximum concentration of the mineral calcium and a complex of microelement chelates.

The composition, g/l (g/dm³):

| CaO | MgO | Fe* | Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | SO ₄ |
|---------------|-----|-----|-----|------|------|------|-------|-------|--------------------|-----------------|
| not less than | | | | | | | | | not less than | |
| 200 | 13 | 0,3 | 0,5 | 0,45 | 0,75 | 0,23 | 0,015 | 0,005 | 125 | 0,46 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.

КОМПЛЕМЕТ FERTILIZERS WITH A SEPARATE MACROELEMENT



Brand: **PK**

Combination of organic phosphorus and potassium to supplement root nutrition for these elements.

The composition, g/l (g/dm³):

| P ₂ O ₅ | K ₂ O |
|-------------------------------|------------------|
| not less than | |
| 210 | 140 |

Packing: 400 ml, 2, 20, 1000 l.



Brand: **CALCIUM EXTRA**

contains a chelated form recommended for the rapid elimination of calcium starvation.

The composition, g/l (g/dm³):

| CaO* | N _{total} |
|---------------|--------------------|
| not less than | |
| 130 | 40 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: **CALCIUM FORM**

Calcium chlorine-free fertilizer with boron, nitrogen-free.

The composition, g/l (g/dm³):

| CaO | B |
|---------------|-----|
| not less than | |
| 70 | 3,0 |

Packing: 2, 20, 1000 l.



Brand: **MAGNESIUM**

Contains magnesium in mineral form for foliar feeding of crops.

The composition, g/l (g/dm³):

| MgO | N _{total} |
|---------------|--------------------|
| not less than | |
| 50 | 26 |

Packing: 2, 20, 1000 l.



Brand: **MAGNESIUM EXTRA**

Contains a chelated form of magnesium that is more effective than the mineral form.

The composition, g/l (g/dm³):

| MgO* | N _{total} |
|---------------|--------------------|
| not less than | |
| 100 | 40 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: **PKMg (PHOSPHORUS, POTASSIUM, MAGNESIUM)**

Combination of chelated magnesium, organic phosphorus and potassium.

The composition, g/l (g/dm³):

| MgO* | N _{total} | P ₂ O ₅ | K ₂ O |
|---------------|--------------------|-------------------------------|------------------|
| not less than | | | |
| 50 | 19 | 289 | 259 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: **SULFUR**

Mineral sulfur-containing fertilizer. Sulfur is presented in the form of SO₄²⁻-ion, which is easily absorbed by plants.

The composition, g/l (g/dm³):

| N _{total} | SO ₄ |
|--------------------|-----------------|
| not less than | |
| 87 | 300 |

Packing: 2, 20, 1000 l.

Комплет UNIVERSAL ORGANOMINERAL FERTILIZERS



Brand: **BUD**

A complex of nutrient elements and active organic substances to enhance branching, improve the quality of flowering and form the ovary of fruit, vegetable and ornamental crops.

The composition, g/l (g/dm³):

| CaO* | B | N _{total} | P ₂ O ₅ | Active organic matter |
|---------------|-----|--------------------|-------------------------------|-----------------------|
| not less than | | not less than | | |
| 50 | 3,0 | 50 | 200 | 100 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: GARDEN-HORTICULTURE IMPULSE

A balanced combination of microelements in the optimal ratio and active organic substances for fruit, vegetable and ornamental crops.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ | Active organic matter |
|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|-----------------------|
| 10 | 9,0 | 15 | 4,5 | 0,15 | 0,05 | 20 | 110 | 75 | 10 | 200 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: ACTIVE

Contains the necessary microelements and active organic substances for high growth rates of vegetable, fruit and ornamental crops.

The composition, g/l (g/dm³):

| MgO* not less than | Fe* | Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ | Active organic matter |
|-----------------------|-----|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|-----------------------|
| 11,6 | 9,0 | 3,0 | 3,0 | 5,0 | 3,0 | 0,15 | 0,05 | 105 | 99 | 87 | 10 | 200 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



Brand: START

Balanced composition of microelements and active organic substances that provide intensive growth and development in the early stages of growth.

The composition, g/l (g/dm³):

| MgO* not less than | Fe* | Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ | Active organic matter |
|-----------------------|------|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|-----------------------|
| 17 | 12,5 | 3,5 | 4,0 | 7,0 | 4,5 | 0,15 | 0,05 | 25 | 180 | 70 | 10 | 200 |

* - element in a chelated compound

Packing: 400 ml, 2, 20, 1000 l.



ORGANOMINERAL FERTILIZERS FOR INDIVIDUAL CROPS AND THEIR GROUPS



Brand: LEGUMES IMPULSE

Complex fertilizer with a high content of molybdenum, cobalt and containing active organic substances to achieve high yields of leguminous crops and grasses.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ | Active organic matter |
|-----|-----|-----|-----|-----|-----|--------------------|-------------------------------|------------------|-----------------|-----------------------|
| 15 | 2,0 | 5,0 | 8,0 | 15 | 3,0 | 30 | 120 | 80 | 10 | 200 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: GRAIN IMPULSE

With a balanced ratio of manganese and copper, containing active organic substances to achieve high productivity and quality of crops.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ | Active organic matter |
|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|-----------------------|
| 20 | 5,0 | 15 | 4,5 | 0,15 | 0,05 | 30 | 140 | 100 | 10 | 200 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: CORN IMPULSE

With a high concentration of zinc and active organic substances for intensive growth and cobbing of corn.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ | Active organic matter |
|-----|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|-----------------------|
| 10 | 2,5 | 30 | 4,0 | 0,15 | 0,05 | 20 | 140 | 90 | 10 | 200 |

* - element in a chelated compound

Packing: 2, 20, 1000 l.



Brand: RAPESEED IMPULSE

With a high content of manganese, sulfur and active organic substances in the composition, providing high productivity of rapeseed, sunflower and other oilseeds.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ | Active organic matter |
|------------------------------------|-----|-----|-----|------|------|--------------------|-------------------------------|------------------|-----------------|-----------------------|
| 20 | 2,0 | 12 | 7,0 | 0,15 | 0,06 | 25 | 120 | 80 | 10 | 200 |
| * - element in a chelated compound | | | | | | | | | | |

Packing: 2, 20, 1000 l.



Brand: FLAX IMPULSE

with an increased content of zinc, in balance with manganese, copper and boron, containing active organic substances in its composition, which determine the receipt of high yields of flax.

The composition, g/l (g/dm³):

| Mn* | Cu* | Zn* | B | Mo* | Co* | N _{total} | P ₂ O ₅ | K ₂ O | SO ₄ | Active organic matter |
|------------------------------------|-----|-----|-----|-----|------|--------------------|-------------------------------|------------------|-----------------|-----------------------|
| 11 | 4,5 | 30 | 3,0 | 1,0 | 0,05 | 30 | 155 | 110 | 10 | 200 |
| * - element in a chelated compound | | | | | | | | | | |

Packing: 20, 1000 l.

KompleMet fertilizers are tank mix compatible with most plant protection products. Before mixing, a preliminary check for chemical compatibility is necessary.

Attention! To avoid burns and reduce productivity, foliar treatment should be carried out at an air temperature not higher than 25oC; time before precipitation - at least 4 hours. The use of organomineral fertilizers is most effective at a temperature of 15-25o C.

IMPORTANT: Calcium, Calcium Extra, Calcium Form, Magnesium, Magnesium Extra are brought in separately!

THE VALUE OF ELEMENTS (MESO-, MICRO-) IN THE CULTIVATION OF CROPS

Microelements are indispensable and essential mineral elements in plant nutrition and perform important functions in the process of their growth and development.

Modern crop cultivation technologies aimed at the formation of highly productive crops must necessarily include in the fertilizer systems the full provision of plants with microelements along with the main nutrient elements. The most effective ways to use microelements, from an economic and environmental point of view, are seed treatment and foliar feeding.

КОМПЛЕМЕТ MESOELEMENTS

Ca

Calcium affects the metabolism of carbohydrates and protein compounds, determines the availability and promotes the absorption of a number of macro- and microelements by plants. Calcium is essential for plant growth, leaf formation, root hair formation, and root development. The deficiency manifests itself in acidic soils and affects the upper parts of plants: the growth of young leaves is inhibited, small leaves of irregular shape are formed. Root tips die. Calcium deficiency is the cause of physiological disorders of fruits - bitter pitting and vitreousness of the apple, blossom end rot of tomatoes, etc., leads to the development of fungal infections. Due to low mobility, calcium is not redistributed in the plant - for normal fruit growth and obtaining a high quality crop, foliar top dressing is extremely important during the period of growth formation - fruit ripening.

Mg

The role of **Magnesium** in a plant is determined by its participation in the processes of photosynthesis and respiration, activation of enzyme systems, carbohydrate and protein metabolism, accumulation of ascorbic acid and sugars. Magnesium has a positive effect on the mobility and availability of phosphates to plants, thereby increasing the degree of their use from the soil and from fertilizers, on the accumulation and transport of carbohydrates and, accordingly, on drought and frost resistance of plants. Deficiency manifests itself on light soils with a high level of acidity, primarily on old leaves in the form of light stripes along the veins, starting from the edges, the leaves become spotty, pale, yellowish. *Sensitive to deficiency:* sugar beets, legumes, corn, millet, sorghum, cereals, potatoes, cucumbers, tomatoes. In *grain crops*, the critical need for magnesium is the phase of tillering and exit into the tube, in *fruit and vegetable crops* - the growth and filling of fruits.

S

Sulfur is involved in nitrogen and carbohydrate metabolism, in the processes of respiration and fat synthesis, enhances the growth and development of roots, stimulates the formation of nodule bacteria on the roots of legumes, and activates the absorbing activity of the root system. Deficiency symptoms: on young, growing leaves or growth points, yellowing, necrosis, small leaves, elongation of petioles, growth suspension, maturation delay are observed. *The purpose of the treatments:* increases the efficiency of the use of NPK fertilizers, promotes the mobilization of nutrient elements from the soil (calcium, magnesium, iron, microelements) and reduces the intake of radionuclides into the plant, increases the resistance of crops to adverse climatic conditions. *Sensitive to deficiency:* rapeseed, turnip, radish, garlic, onion, cabbage, broccoli, mustard.

KOMPLEMET MICROELEMENTS

Fe

Iron in plants activates the processes of photosynthesis and respiration, catalyzes the initial stages of synthesis of chlorophyll. Deficiency is observed during waterlogging, on carbonate and overcalcified soils.

Deficiency symptoms: intense chlorosis of leaves, their rapid fall.

Sensitive to deficiency: fruit, citrus, grapes, legumes, corn, tomatoes, roses and ornamental plants.

Mn

Manganese is necessary for the normal course of photosynthesis, contributes to an increase in the content of sugars and their outflow from the leaves, and participates in nitrogen metabolism. The application is necessary on carbonate, heavily calcareous and other soils with a pH above 6,0.

Deficiency symptoms: punctate leaf chlorosis (the appearance of yellow spots between the veins, followed by the death of areas of chlorosis tissues). In cereals, chlorotic spots look like elongated stripes (gray spotting); in beets - the appearance of small spots on the leaf blade; in fruit trees - chlorosis disease, weak foliage.

Sensitive to deficiency: beets, root crops, cereals, potatoes, apple, cherries, raspberries.

Cu

Copper is involved in the water balance of plants - improves turgor, increases resistance to lodging, bacterial and fungal diseases, regulates nitrogen metabolism, protein synthesis. With the introduction of high doses of nitrogen, the need for copper increases.

Deficiency symptoms: growth and flowering retardation, chlorosis, loss of turgor, wilting of plants. In cereals - whitening and drying of the tips of the leaves, the ear does not develop, the stem gradually dries up; in fruit - dryness

Deficiency sensitive: wheat, barley, oats, flax, corn, carrots, beets, alfalfa, cabbage, fruit.

Zn

Zinc in plants regulates growth processes, carbohydrate metabolism, protein synthesis, and normalizes phosphorus metabolism. The need increases with the introduction of high doses of phosphate fertilizers, as well as on sandy, sandy loam, peaty and carbonate soils.

Deficiency symptoms: growth retardation of internodes and leaves, the appearance of chlorosis, the development of rosette. In apple, pear, walnut - rosette disease (the formation of small leaves at the ends of the branches, which are arranged in the form of a rosette); sweet cherry - the appearance of small, narrow and deformed leaves; in corn - whitening of the top.

Sensitive to deficiency: fruits, corn, flax, hops, legumes.

B

Boron is of great importance for the development of the reproductive organs of plants, enhances the growth of pollen tubes, pollen germination, increases the number of flowers and fruits, plays an important role in cell division, the development of the root system. Application is necessary in conditions of liming of acidic soils.

Deficiency symptoms: death of the growth point in dicots, stunting of shoots and roots, leaf blades thicken, twist, become brittle, flowers do not form, the development of the vascular system is disrupted, cells are poorly differentiated.

Sensitive to deficiency: sugar and fodder beet, alfalfa and clover (seed crops), flax, sunflower, hemp, vegetable and essential oil crops.

Mo

Molybdenum normalizes nitrogen metabolism in plants, catalyzes the reduction of nitrates, participates in the process of biological fixation of atmospheric nitrogen, affects the accumulation of ascorbic acid.

Deficiency symptoms: formation of pale spots between the veins of the leaf, growth retardation, plants become pale green in color, leaf blades are deformed and the leaves die prematurely, the formation of nodules on the roots is disturbed in legumes.

Sensitive to deficiency: legumes, root vegetables, rapeseed, cabbage, lettuce, spinach.

Co

Cobalt plays a specific role in the process of molecular nitrogen fixation, reduces the breakdown of chlorophyll in the dark, affects the accumulation of sugars, and increases the total content of nucleic acids in leaves.

Deficiency symptoms: leaf chlorosis, growth retardation, legumes have low nodule activity.

Deficiency sensitive: legumes, root vegetables, sugar beets, potatoes.

KOMPLEMET ORGANOMINERALS

New generation fertilizers enriched with **Active organic substances** are recommended for use in plant growing, horticulture, vegetable growing and ornamental crops as an anti-stress complex and for stimulating growth and development processes, 12,5-17% more effective than traditional KompleMet fertilizers.

The main substance that is part of AOS (20%) is alginic acid - an oligosaccharide that stimulates the synthesis of polyamines in plants, positively affecting the rate of cell division, increasing immunity and increasing the intensity of flowering and fertilization, thereby ensuring crop growth.

Due to the high content of phytohormones of the gibberellins group, the use of fertilizers with AOS leads to an increase in growth processes by 11-21%, and in fruit and vegetable crops to an increase in elasticity and stretching of the skin, which is a guarantee of high marketability of products.

The action of auxins in the composition of AOS is aimed at the development of the plant root system, the growth of lateral roots and the enhanced formation of root hairs, which are responsible for providing plants with water and nutrients, and cytokinins (adenine (6-aminopurine)) - to enhance cell division, stimulate branching and formation new shoots and roots.

Amino acids, which make up about 1,5% of AOS, are an important factor that maintains cell viability and the proper course of cellular processes, counteracts cell aging and the negative effects of stressors: heat and frost.

The effectiveness of fertilizers containing AOS in its composition is confirmed by the results of field experiments conducted on the basis of specialized research institutes and in production tests.

COMPLEX HELATED FERTILIZERS KOMPLEMET
FOR PLANTS NUTRITION

| Brand KompleMet | Content of batteries, g/l (g/dm³) | | | | | | | | | | | | |
|---------------------------------------|-----------------------------------|-----------|---------------|-----------|--------|------|-------|------------|--------|----------|----------------------------------|--------------------|--------------------|
| | CaO* | MgO* | Fe* | Mn* | Cu* | Zn* | B** | Mo* | Co* | Ntotal** | P ₂ O ₅ ** | K ₂ O** | SO ₄ ** |
| | calcium | magnesium | ferrum | manganese | copper | zinc | boron | molybdenum | cobalt | nitrogen | phosphorus | potassium | sulfur |
| not less than | | | not less than | | | | | | | | | | |
| for individual crops and their groups | | | | | | | | | | | | | |
| Rapeseed | | | | 20 | 2,0 | 12 | 7,0 | 0,15 | 0,06 | 1,0 | 83 | 57 | 35 |
| GH (Garden Horticulture) | | | | 10 | 9,0 | 15 | 4,5 | 0,15 | 0,05 | 5,5 | 79 | 83 | 14 |
| Potato | | | | 15 | 12 | 8,0 | 7,0 | 0,15 | 0,05 | 9,8 | 83 | 99 | 14 |
| Tomatoes | | | 7,7 | 5,9 | 5,6 | 8,4 | 2,8 | 0,1 | 0,03 | 3,7 | 87 | 79 | 23 |
| Cucumbers | | | 10 | 4,6 | 4,0 | 7,8 | 5,0 | 0,1 | 0,03 | 3,2 | 91 | 78 | 25 |
| Grain | | | | 20 | 5,0 | 15 | 4,5 | 0,15 | 0,05 | 9,2 | 96 | 105 | 14 |
| Corn | | | | 10 | 2,5 | 30 | 4,0 | 0,15 | 0,05 | 2,4 | 97 | 85 | 14 |
| Beet | | | | 25 | 4,0 | 6,0 | 7,0 | 0,15 | 0,05 | 11 | 87 | 106 | 14 |
| Flax | | | | 10 | 5,0 | 25 | 7,0 | 0,15 | 0,05 | 3,9 | 92 | 85 | 14 |
| Legumes | | | | 15 | 2,0 | 5,0 | 8,0 | 15 | 3,0 | 6,8 | 83 | 103 | 14 |
| Blueberry | | 6,2 | 7,5 | 2,5 | 2,2 | 3,7 | 1,1 | 0,03 | 0,01 | 3,7 | 75 | 62 | 16 |
| Cotton | | | | 10 | 5,0 | 25 | 10 | 0,15 | 0,05 | 70 | 90 | 80 | 14 |
| Resource | | | 5,6 | 14 | 5,6 | 9,0 | 0,5 | 0,7 | 0,05 | 14 | 100 | 120 | 23 |
| with a separate element | | | | | | | | | | | | | |
| Ferrum+Zinc | | | 15 | | | 15 | | | | | 73 | 41 | 25 |
| Ferrum | | | 30 | | | | | | | | 80 | 39 | 51 |
| Manganese | | | | 30 | | | | | | 12 | 80 | 103 | 14 |
| Copper | | | | | 30 | | | | | 14 | 67 | 88 | |
| Zinc | | | | | | 30 | | | | | 67 | 43 | |
| Molybdenum | | | | | | | | 30 | | 3,8 | 44 | 58 | |
| Boron | | | | | | | 150 | | | 65 | | | |
| Calcium | 200** | 13** | 0,3 | 0,5 | 0,45 | 0,75 | 0,23 | 0,015 | 0,005 | 125 | | | 0,46 |
| Calcium Extra | 130 | | | | | | | | | 40 | | | |
| Calcium Form | 70** | | | | | | 3,0 | | | | | | |
| Magnesium | | 50** | | | | | | | | 26 | | | |
| Magnesium Extra | | 100 | | | | | | | | 40 | | | |
| PK | | | | | | | | | | | 210 | 140 | |
| PK-2 | | | | | | | | | | | 210 | 280 | |
| PKMg | | 50 | | | | | | | | 19 | 289 | 259 | |
| Sulfur | | | | | | | | | | 87 | | | 300 |

COMPLEX HELATED ORGANOMINERAL FERTILIZERS KOMPLEMET
FOR REANIMATION AND STIMULATION OF PLANT GROWTH

| Brand KompleMet | Content of batteries, g/l (g/dm³) | | | | | | | | | | | | | |
|------------------------------------|-----------------------------------|-----------|--------|-----------|--------|------|-------|------------|--------|---------------|----------------------------------|--------------------|--------------------|-----------------------------|
| | CaO* | MgO* | Fe* | Mn* | Cu* | Zn* | B** | Mo* | Co* | Ntotal** | P ₂ O ₅ ** | K ₂ O** | SO ₄ ** | active organic matter |
| | calcium | magnesium | ferrum | manganese | copper | zinc | boron | molybdenum | cobalt | nitrogen | phosphorus | potassium | sulfur | |
| | not less than | | | | | | | | | not less than | | | | |
| Bud | 50 | | | | | | 3,0 | | | 50 | 200 | | | 100 |
| Legumes Impulse | | | | 15 | 2,0 | 5,0 | 8,0 | 15 | 3,0 | 30 | 120 | 80 | 10 | 200 |
| Grain Impulse | | | | 20 | 5,0 | 15 | 4,5 | 0,15 | 0,05 | 30 | 140 | 100 | 10 | 200 |
| Corn Impulse | | | | 10 | 2,5 | 30 | 4,0 | 0,15 | 0,05 | 20 | 140 | 90 | 10 | 200 |
| Rapeseed Impulse | | | | 20 | 2,0 | 12 | 7,0 | 0,15 | 0,06 | 25 | 120 | 80 | 10 | 200 |
| Garden- Horticulture Impulse | | | | 10 | 9,0 | 15 | 4,5 | 0,15 | 0,05 | 20 | 110 | 75 | 10 | 200 |
| Active | | 11,6 | 9,0 | 3,0 | 3,0 | 5,0 | 3,0 | 0,15 | 0,05 | 105 | 99 | 87 | 10 | 200 |
| Start | | 17 | 12,5 | 3,5 | 4,0 | 7,0 | 4,5 | 0,15 | 0,05 | 25 | 180 | 70 | 10 | 200 |
| Flax Impulse | | | | 11 | 4,5 | 30 | 3,0 | 1,0 | 0,05 | 30 | 155 | 110 | 10 | 200 |

COMPLEX HELATED FERTILIZERS KOMPLEMET
FOR ORNAMENTAL PLANTS

| Brand KompleMet | Content of batteries, g/l (g/dm³) | | | | | | | | | | | |
|---------------------------------|-----------------------------------|--------|-----------|--------|------|-------|------------|--------|---------------|----------------------------------|--------------------|--------------------|
| | MgO* | Fe* | Mn* | Cu* | Zn* | B** | Mo* | Co* | Ntotal** | P ₂ O ₅ ** | K ₂ O** | SO ₄ ** |
| | magnesium | ferrum | manganese | copper | zinc | boron | molybdenum | cobalt | nitrogen | phosphorus | potassium | sulfur |
| | not less than | | | | | | | | not less than | | | |
| Universal for indoor plants | 7,7 | 2,3 | 1,92 | 0,31 | 0,46 | 0,54 | 0,012 | 0,004 | 73 | 57 | 51 | 5,0 |
| Orchid | 8,3 | 1,67 | 1,39 | 0,22 | 0,33 | 0,39 | 0,008 | 0,003 | 63 | 57 | 51 | 3,6 |
| For decorative deciduous plants | 8,3 | 2,5 | 2,1 | 0,33 | 0,5 | 0,58 | 0,013 | 0,004 | 103 | 62 | 55 | 5,4 |
| For decorative flowering plants | 10 | 3,0 | 2,5 | 0,4 | 0,6 | 0,7 | 0,015 | 0,005 | 94 | 75 | 66 | 6,5 |
| For ficuses and palms | 7,1 | 2,14 | 1,79 | 0,29 | 0,43 | 0,5 | 0,011 | 0,004 | 63 | 53 | 47 | 4,6 |
| Cactus | 6,3 | 1,25 | 1,04 | 0,17 | 0,25 | 0,29 | 0,006 | 0,002 | 52 | 43 | 38 | 2,7 |
| Citrus | 6,3 | 2,5 | 2,1 | 0,33 | 0,5 | 0,58 | 0,013 | 0,004 | 53 | 50 | 44 | 5,4 |
| For flower beds | 10 | 1,5 | 2,0 | 0,5 | 1,5 | 0,45 | 0,015 | 0,005 | 84 | 71 | 64 | 3,9 |
| Lawn | 9,4 | | 2,5 | 0,63 | 1,88 | 0,56 | 0,019 | 0,006 | 94 | 66 | 61 | 1,7 |
| Needles | 8,3 | 3,33 | 1,39 | 0,22 | 0,33 | 0,39 | 0,008 | 0,003 | 3,4 | 62 | 53 | 6,4 |
| Rose | 10 | 4,5 | 3,0 | 0,75 | 2,25 | 0,68 | 0,023 | 0,008 | 74 | 84 | 73 | 9,7 |
| For camellias and azaleas | 9,4 | 1,88 | 1,56 | 0,25 | 0,38 | 0,44 | 0,009 | 0,003 | 74 | 65 | 57 | 4,1 |
| For roses and chrysanthemums | 11 | 3,33 | 2,78 | 0,44 | 0,67 | 0,78 | 0,017 | 0,006 | 95 | 83 | 73 | 7,2 |
| For ornamental shrubs | 7,5 | 3,0 | 2,0 | 0,5 | 1,5 | 0,45 | 0,015 | 0,005 | 93 | 61 | 53 | 6,5 |

* - element in a chelated compound;
** - element in mineral or organomineral form.
Packing: 400 ml, 2 l, 20 l, 1000 l.

WINTER CEREALS



NOTES

| WINTER CEREALS | | | | |
|---|-----------------------------|-----------------------------|----------------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Autumn application | | | | |
| Seed processing | Start | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 14-15 (emergence of 4-5 leaves) | PKMg | 2 ¹ | - | Formation of adventitious roots on lateral shoots, increased tillering |
| BBCH 20-24 (tillering) | Resource | 2 | - | Increased tillering, increasing resistance to diseases, increasing winter hardiness |
| Spring application | | | | |
| BBCH 21-24 (tillering) | PKMg+ Copper | 2+1 | 1+0,5 | Increased tillering, root development, formation of shoot density |
| BBCH 29-31 (tillering - the beginning of trumpeting) | Grain Impulse | 2 ² | - | Increase in the area of leaves, the main axis of the ear and the number of spikelets |
| | Grain | - | 2 ² | |
| BBCH 37-39 (flag leaf) | Grain+ «Ferrum+ Zinc» | 2+1 ² | 2 ² | Increase of flowers in spikelets, activation of chlorophyll synthesis |
| BBCH 73-75 (milky ripeness) | Copper | 1 ³ | - | Transfer of nitrogen from straw to grain and increased accumulation of protein in grain |

Highly recommended:

¹ - with a low content of mobile forms of phosphorus in the soil;

² - together with fungicidal and/or insecticidal treatment;

³ - +urea 6-8 kg/ha (gross weight).

Consumption of working solution 200-300 l/ha.

Notes

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| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|---|-----------------------------|-----------------------------|--------------------|---|
| | | extended | basic | |
| Seed processing | Start | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 14-21 (tillering) | PKMg+ Copper | 2+1 ¹ | 1+0,5 ¹ | Increased tillering, root development, formation of shoot density |
| BBCH 29-31 (tillering - the beginning of trumpeting) | Grain Impulse | 2 | - | Increase in the area of leaves, the main axis of the ear and the number of spikelets |
| | Grain | - | 2 | |
| BBCH 32-39 (hatching - when growing oats) | Boron | 2 | 1 | Increasing the number of grains in the panicle |
| BBCH 37-39 (flag leaf) | Grain+ «Ferrum+ Zinc» | 2+1 ^{2,3} | 2 ^{2,3} | Increase of flowers in spikelets, activation of chlorophyll synthesis |
| BBCH 73-75 (milky ripeness) | Copper | 1 ⁴ | - | Transfer of nitrogen from straw to grain and synthesis of proteins, increase in the mass and quality of grain |

- ¹ - allowed in conjunction with herbicide treatment;
- ² - together with fungicidal and/or insecticidal treatment;
- ³ - +urea 6-8 kg/ha (gross weight).
- ⁴ - do not use when growing malting barley.

CORN



| CORN | | | | |
|---------------------------------|----------------------------|-----------------------------|-------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| BBCH 13-14 (3-4 leaves) | PKMg | 2 | - | Root development |
| BBCH 15-16 (5-6 leaves) | Corn | 2 | - | Development of the leaf apparatus, laying the size of the cob and its graininess |
| BBCH 16-18 (6-8 leaves) | Zinc | - | 2 | Development of the leaf apparatus, laying the size of the cob and its graininess |
| BBCH 18-20 (8-10 leaves) | Corn Impulse+ Ferrum | 2+1 | - | Development of the leaf apparatus, activation of chlorophyll synthesis |
| BBCH 51-59 (hatching) | Boron+ PKMg | 2+1 | - | Pollen tube growth, flower and pollen development, carbohydrate transport and cob filling |

RECOMMENDED PROGRAMS FOR THE USE
OF COMPLEX FERTILIZERS KOMPLEMET

RICE, MILLET, SORGHUM



RECOMMENDED PROGRAMS FOR THE USE
OF COMPLEX FERTILIZERS KOMPLEMET

BUCKWHEAT



| RICE, MILLET, SORGHUM | | | | |
|---------------------------------|--------------------|-----------------------------|-------------------|--|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing | Start | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 15-24 (tillering) | PKMg+ Grain | 2 ¹ +2 | 1 ¹ +1 | Increased tillering, root development, formation of shoot density. Increase the efficiency of photosynthesis and synthesis of protein, phosphorus mobility |
| BBCH 51-59 (hatching) | Grain+ Boron | 2+1 | 1+0,5 | Improvement of generative development, inflorescence formation, grain yield quality, especially in dry years |

Highly recommended:

¹ - with a low content of mobile forms of phosphorus in the soil.

Consumption of working solution when spraying ground 200-300 l/ha.

| BUCKWHEAT | | | | |
|---------------------------------|--------------------------------|-----------------------------|-------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing | Start | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 20-29 (branching) | PKMg+ «Ferrum+ Zinc» | 2+1 | 1 | Branching amplification |
| BBCH 51-56 (budding) | Grain+ Boron+ Molybdenum | 2+1+0,5 | 1+0,5 | Support high growth rates and nutrient intake, formation of generative organs |

Consumption of working solution 200-300 l/ha.

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LEGUMES



NOTES

PEAS, LUPINS, BROAD BEANS,
CHICKPEAS, LENTILS AND OTHER LEGUMES

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|----------------------------------|-------------------------------|-----------------------------|--------------------|--|
| | | extended | basic | |
| Seed processing | Legumes Impulse | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 13-14 (3-4 true leaves) | PKMg+ Molybdenum | 2+1 ¹ | 1+0,5 ¹ | Growth and development of roots, normalization of nitrogen metabolism and development of nitrogen-fixing bacteria |
| BBCH 16-18 (6-8 leaves) | Legumes+ «Ferrum+ Zinc» | 2+1 | 2 | Increase the efficiency of photosynthesis, strengthening of growth processes |
| BBCH 51-59 (budding) | Legumes Impulse+ Boron | 2+1 ² | - | Support high growth rates and nutrient intake, formation of generative organs |
| | Legumes | - | 2 ² | |
| BBCH 69-70 (end of flowering) | Legumes+ Boron | 2+1 ² | - | Formation and preservation of seeds |

Highly recommended:
¹ - on acidic soils;
² - together with fungicidal and/or insecticidal treatment.

Consumption of working solution 200-300 l/ha.

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| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|---|---------------------|-----------------------------|--------------------|---|
| | | extended | basic | |
| Seed processing | Legumes Impulse | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 13-14 (3-4 leaves) | PKMg+ Molybdenum | 2+1 ¹ | 1+0,5 ¹ | Nodule bacteria development, nitrogen metabolism, increase the efficiency of photosynthesis |
| BBCH 20-29 (branching) | Legumes | 2 | 2 | Branching amplification |
| BBCH 51-59 (budding) | Legumes Impulse | 2 ² | - | Intensive growth and development of the stem, the formation of leaves and generative organs |
| | Legumes | - | 2 ² | |
| BBCH 69-75 (fruiting - pouring seeds) | Sulfur | 3 ³ | - | Increased productivity and protein content |

¹ - on acidic soils;
² - together with fungicidal and/or insecticidal treatment;
³ - +urea 6-8 kg/ha (gross weight).



NOTES

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|-----------------------------------|--------------------|-----------------------------|------------------|--|
| | | extended | basic | |
| Seed processing | Legumes | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 21-29 (branching) | PKMg+ Boron | 2+1 | 1+0,5 | Overcoming deficiency in the early stages of growth, restoration of carbohydrate balance, activation of growth, development of the root system |
| BBCH 51-59 (budding) | Legumes+ Boron | 2+1 ¹ | 1+1 ¹ | When grown for seed - increase in seed productivity |
| 8-10 days after each mowing | Legumes+ PKMg | 2+2 | 1+1 | Growth of vegetative mass, normalization of nitrogen metabolism and development of nitrogen-fixing bacteria |

¹ - when grown for seed.

Consumption of working solution 200-300 l/ha.

Notes

RECOMMENDED PROGRAMS FOR THE USE
OF COMPLEX FERTILIZERS KOMPLEMET

PERENNIAL GRASSES



RECOMMENDED PROGRAMS FOR THE USE
OF COMPLEX FERTILIZERS KOMPLEMET

LEGUME-GRASS MIXTURES



| FESCUE, TIMOTHY, RYEGRASS AND OTHER PERENNIAL GRASSES | | | | |
|--|--------------------------------------|-----------------------------|-------------------|--|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| In the spring - after regrowth | PKMg+ Grain | 2 ¹ +2 | 1 ¹ +1 | Overcoming deficiency in the early stages of growth, restoration of carbohydrate balance, activation of growth, development of the root system |
| 8-10 days after each mowing | PKMg+ Grain+ «Ferrum+ Zinc» | 2+2+1 | 2+1 | Stimulation of chlorophyll synthesis, activation of growth |

Highly recommended:

¹ - with a low content of mobile forms of phosphorus in the soil.

Consumption of working solution 200-300 l/ha.

Notes

| LEGUME-GRASS MIXTURES | | | | |
|-------------------------------------|--------------------------------------|-----------------------------|-------|--|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| BBCH 21-29 (branching/tillering) | PKMg+ Boron | 2+1 | 1+0,5 | Overcoming deficiency in the early stages of growth, restoration of carbohydrate balance, activation of growth, development of the root system |
| 8-10 days after each mowing | PKMg+ Grain+ «Ferrum+ Zinc» | 2+2+1 | 2+1 | Growth of vegetative mass, normalization of carbohydrate and protein metabolism. Stimulation of chlorophyll synthesis, activation of growth |

Consumption of working solution 200-300 l/ha.

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WINTER RAPESEED



NOTES

| WINTER RAPESEED | | | | |
|--|--|----------------------------------|--------------------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Autumn application | | | | |
| BBCH 14-16 (4-6 leaves) | PKMg+ Boron | 2 ¹ +1 | 1 ¹ +1 | Root development, improving of overwintering, the laying of organs that determine the yield of rapeseed |
| BBCH 18-19 (8-9 leaves) | Boron+ Manganese | 1 ² +1 ^{3,4} | 0,5 ² | Improving the development of roots and overwintering, increasing the content of carbohydrates |
| Spring application | | | | |
| BBBB (after regrowth) | PKMg+ Boron | 2+1 ⁵ | 1+0,5 ⁵ | Root development, increasing resistance to spring frosts, optimizing phosphorus nutrition |
| BBCH 21-35 (development of lateral shots - stalking) | Rapeseed Impulse+ Borron+ «Ferrum+ Zinc» | 2+1+1 ⁶ | - | Activation of vegetative growth and branching, increase in the intensity of photosynthesis and metabolism |
| | Rapeseed | - | 2 ⁶ | Activation of vegetative growth and branching |
| BBCH 50-57 (budding) | Rapeseed+ Boron | - | 2+0,5 | Pollen tube growth, flower and pollen development, carbohydrate transport |
| | Rapeseed Impulse+ Boron | 2+1 | - | |
| BBCH 69-75 (pod formation) | Sulfur | 2 ⁷ | - | The formation and preservation of pods, the development of seeds in them |

Highly recommended:

- ¹ - together with fungicide-growth regulator;
- ² - when overgrowing rapeseed, together with growth regulators;
- ³ - on soils of low and medium availability;
- ⁴ - on freshly limed soils;
- ⁵ - allowed together with CAM;
- ⁶ - together with fungicidal and/or insecticidal treatment;
- ⁷ - +urea 6-8 kg/ha (gross weight).

Consumption of working solution 200-300 l/ha.

SPRING RAPESEED



NOTES

SPRING RAPESEED

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|---|-------------------------------|--------------------------------|----------------------------------|---|
| | | extended | basic | |
| BBCH 13-16 (leaf formation) | PKMg+ Boron | 2 ² +1 ¹ | 1 ² +0,5 ¹ | Improving the development of the root system, increasing the content of carbohydrates, formation and development of the leaf apparatus |
| BBCH 21-29 (development of lateral shots - staking) | Rapeseed Impulse+ Boron | 2+1 ³ | - | Activation of vegetative growth and branching |
| | Rapeseed+ Boron | - | 2+0,5 ³ | |
| BBCH 21-35 (development of lateral shots - staking) | «Ferrum+ Zinc» | 1 | - | Intensity of photosynthesis and metabolism |
| BBCH 51-59 (budding) | Rapeseed+ Boron | 2+1 ³ | 1+0,5 ³ | Intensive pod formation, increased oil content, uniform ripening |
| BBCH 69-75 (pod formation) | Sulfur | 2 ⁴ | - | The formation of pods and development of seeds in them |

Highly recommended:

- ¹ - together with growth regulators;
- ² - with a low content of mobile forms of phosphorus in the soil;
- ³ - together with fungicidal and/or insecticidal treatment;
- ⁴ - +urea 6-8 kg/ha (gross weight).

Consumption of working solution 200-300 l/ha.

Notes



NOTES

| SUNFLOWER | | | | |
|--|-------------------------------|-----------------------------|----------------|--|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing | Rapeseed | 4 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 14-16 (4-6 leaves) | PKMg | 2 ¹ | 1 ¹ | Overcoming deficiency in the early stages of growth, restoration of carbohydrate balance, activation of growth, development of the root system |
| | Rapeseed+ Boron | 2+1 | - | |
| BBCH 18-20 (8-10 leaves) | Rapeseed+ Boron | - | 2+1 | Growth of vegetative mass, normalization of nitrogen metabolism |
| BBCH 51-53 (inflorescence formation) | Rapeseed Impulse+ Boron | 2+1 | - | Stimulation of flowering and fertilization, increase in the number and weight of seeds in the basket |

¹ - with a low content of mobile forms of phosphorus in the soil.

Consumption of working solution 200-300 l/ha.



NOTES

| FLAX | | | | |
|-------------------------------------|----------------------------|-----------------------------|-------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing | Flax | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 16-19 («herringbone» phase) | Flax+ Boron | 3+1 | - | Strengthening growth and development, increase the efficiency of photosynthesis |
| | Zinc+ Boron | - | 2+1 | Strengthening growth and development, increase the efficiency of photosynthesis, increasing the yield and quality of fiber |
| BBCH 50-57 (budding) | Flax Impulse+ Boron* | 3+1 | - | Strengthening growth and development, increase the efficiency of photosynthesis, increasing the yield and quality of fiber |
| | Zinc+ Boron* | - | 2+1 | Development of generative organs, formation of pollen, increase in seed yield |

Highly recommended:

* - for oil flax.

Consumption of working solution 200-300 l/ha.

Notes

COTTON



NOTES

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|--|--------------------|-----------------------------|----------------|---|
| | | extended | basic | |
| Seed processing | Start | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| BBCH 12-13 (2-3 true leaves) | PKMg | 2 ¹ | 1 ¹ | Strengthening growth and development of roots, formation of shoots |
| BBCH 51-59 (budding) | Cotton+ Ferrum | 2+2 | 2+1 | Support high growth rates and nutrient intake, formation of generative organs |
| BBCH 60-69 (beginning of flowering - full bloom) | Cotton+ Ferrum | 2+2 | 2 | Increasing the yield and quality of cotton fiber |

¹ - with a low content of mobile forms of phosphorus in the soil.

Consumption of working solution 200-300 l/ha.



| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|--|---------------------------|-----------------------------|------------------|---|
| | | extended | basic | |
| BBCH 14-15 (leaf formation 4-5 leaves) | PKMg+ Boron | 2 ¹ +1 | - | Stimulation of growth and development of the root system, the formation of leaves |
| BBCH 16-19 (leaf formation 6-8 leaves) | Beet+ Boron | 3+2 | 2+1 | Increase the efficiency of photosynthesis, high growth rate |
| BBCH 31-34 (beginning of closing rows) | Beet+ Boron+ Ferrum | 3+2+1 | 2+1+1 | Providing nutrition during the period of enhanced formation of the leaf apparatus and the increase in the mass of the root crop |
| BBCH 35-39 (closing rows) | Beet+ Boron | 3+2 ² | 2+1 ² | Increasing the lifespan of leaves that have finished growing, intensifying photosynthesis and the outflow of sugars into the root crop |

- ¹ - with a low content of mobile forms of phosphorus in the soil;
- ² - no later than one month before cleaning.

POTATO



NOTES

| POTATO | | | | |
|---|------------------------------|-----------------------------|-------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Tuber processing | Potato | 3 l/t | - | Stimulation of development of the root system, optimization of nutrition and growth |
| BBCH 11-19 (plant height 10-15 cm) | PKMg | 2 | - | Stimulation of development of the root system and tubers setting |
| BBCH 35-40 (closing row spacing - the beginning of the formation of tubers) | Calcium | 2-3 ¹ | - | Vegetative development of plant, improvement of tuberization |
| | Potato+ «Ferrum+ Zinc» | 2,5+1 | 2,5 | Strengthening of growth processes, improvement of tuberization, increasing the yield and resistance to diseases |
| BBCH 51-61 (budding - beginning of flowering) | Calcium | 2-3 ¹ | - | Increased yield and quality of tubers, improved tuber survival |
| | Potato+ Boron | 2,5+1 | 2,5+1 | Increased yield, increase in average tuber size |
| BBCH 65-69 (end of flowering) | Boron+ PKMg | 1+2 | 1 | Improving crop development, preventing internal browning of tubers |
| BBCH 75-79 (tuber growth) | Potato | 2,5 | - | Increase the content of dry matter and starch in tubers |
| BBCH 85-89 (tuber growth) | PKMg | 2 | - | Increase the content of dry matter and starch in tubers, increase marketability and shelf life of tubers |

Highly recommended:
¹ - do not mix Calcium with other drugs.
Consumption of working solution 200-300 l/ha.

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NOTES

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|---|--------------------|-----------------------------|----------------|---|
| | | extended | basic | |
| Seed processing | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 10 days after germination/ after picking | PKMg | 2 | 1 | Stimulation of development of the root system |
| 7-10 days after previous treatment/ phase 2-4 true leaves | GH+ Ferrum | 2+1 ^{1,2} | 2 ¹ | Increase the efficiency of photosynthesis, high growth rate |

* - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.

Consumption of working solution 200-300 l/ha.

Notes

VEGETABLE CROPS



NOTES

| CABBAGE | | | | |
|---|----------------------------------|-----------------------------|-------------------------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Cabbage | | | | |
| Seed processing | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 8-10 days after transplanting seedlings | PKMg+ Boron | 2+1 | 1+0,5 | Growth and development of the root system, of the leaf apparatus |
| 20 days after transplanting seedlings | GH+ PKMg | 2+1 | 2 | Development of the leaf apparatus |
| | Sulfur | 2 | 1 | Overcoming chlorosis of young leaves, improving the development |
| During the period of tying of heads | Calcium+ Boron+ Molybdenum | 3 ¹ +1+0,5 | 2 ¹ +0,5 | Pouring heads, increasing resistance to diseases, increasing the density of the head |
| During the period of development of heads | GH+ Calcium | 3+1 ¹ | 2+0,5 ¹ | Pouring heads, increasing resistance to diseases, increasing the density of the head |
| Beijing | | | | |
| Seed processing | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 8-10 days after transplanting seedlings | PKMg+ Boron | 2+1 | 1+0,5 | Growth and development of the root system, of the leaf apparatus |
| 20 days after transplanting seedlings | GH+ PKMg+ Molybdenum | 3+2+0,5 | 2 | Development of the leaf apparatus, formation of denser and better heads |
| During the period of tying of heads | Calcium+ Ferrum+ Manganese | 3 ¹ +1+1 | 2 ¹ +0,5+0,5 | Pouring and increasing of denser heads, increasing resistance to diseases |
| During the period of development of heads | GH+ Calcium Extra | 3+2 ¹ | 2+1 ¹ | Pouring and increasing of denser heads, increasing resistance to diseases |

| CABBAGE | | | | |
|--|----------------------|-----------------------------|------------------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Cauliflower, broccoli | | | | |
| Seed processing | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 8-10 days after transplanting seedlings | PKMg+ Molybdenum | 2+1 | 1+0,5 | Growth and development of the root system, of the leaf apparatus |
| 20 days after transplanting seedlings | CO+PKMg | 3+2 | 2 | Development of the leaf apparatus, formation of rose |
| 30 days after transplanting seedlings | Boron+ Molybdenum | 1+0,5 | 1 | Development of the leaf apparatus, increasing resistance to diseases |
| During the formation of a rose | PKMg+ Calcium | 2+3 ¹ | 2+2 ¹ | The development of flowering shoots and the formation of the head, increasing resistance to diseases |

Highly recommended:
¹ - do not mix Calcium with other drugs;
 * - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.
 Consumption of working solution 200-300 l/ha.

| CARROT | | | | |
|---------------------------------|--------------------|-----------------------------|-------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 2-3 true leaves | PKMg | 2 | 1 | Growth and development of the root system, of the leaf apparatus |
| 4-6 leaves | GH+ Boron | 3+1 | 2+0,5 | Development of the leaf apparatus, formation of the root crop |

| CARROT | | | | |
|---------------------------------|--------------------|-----------------------------|-------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| 8-10 leaves | GH+ Boron | 3+1 | 2+0,5 | Effective elimination of micronutrient deficiencies, high growth rates |
| Root growth | GH | 3 | - | Increase in yield and marketability of root crop |

Highly recommended:
 * - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.
 Consumption of working solution 200-300 l/ha.

| BEANS, PEAS | | | | |
|---------------------------------|---|-----------------------------|-------|--|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing | Legumes* | 2 l/t | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 2-3 true leaves | PKMg | 2 | 1 | Growth and development of the root system, of the leaf apparatus |
| 6-8 leaves | PKMg+ Molybdenum+ «Ferrum+ Zinc» | 2+1+1 | - | Growth and development of roots, normalization of nitrogen metabolism and development of nitrogen-fixing bacteria. Increase the efficiency of photosynthesis, strengthening of growth processes |
| Budding | Legumes+ Boron | 2+1 | 2+1 | Support high growth rates and nutrient intake, formation of generative organs |
| Full bloom | Legumes+ Boron | 2+1 | 2+0,5 | Formation and preservation of seeds |

Highly recommended:
 * - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.
 Consumption of working solution 200-300 l/ha.

| ONION, GARLIC | | | | |
|---|-----------------------|--------------------------|-----------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing/soaking seedlings (bulbs) | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 2-4 tubular leaves | PKMg+ Boron | 2+1 | 1 | Growth and development of the root system, of the leaf apparatus |
| 6-8 tubular leaves | Manganese+ Molybdenum | 1+0,5 | - | Increase the efficiency of photosynthesis and synthesis of protein, phosphorus mobility and root growth |
| | Sulfur | 2 | 1 | Overcoming chlorosis of young leaves, improving the development |
| Formation of the bulb | GH+ Sulfur | 2+2 | 1+1 | Increasing the mass of the bulb |
| Growth of the bulb | PKMg+ Copper+ Zinc | 2+1+1 | 1+0,5+0,5 | Increasing the mass of the bulb, increasing resistance to diseases |

* - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.
Consumption of working solution 200-300 l/ha.

| TABLE BEET | | | | |
|---------------------------------|---------------------------|-----------------------------|-------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing | Beet* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| Leaf formation 4-5 leaves | PKMg+ Boron | 2+1 | - | Stimulation of growth and development of the root system, the formation of leaves |
| Leaf formation 6-8 leaves | Beet+ Boron+ Ferrum | 3+2+1 | 2+1 | Increase the efficiency of photosynthesis, high growth rate |

| TABLE BEET | | | | |
|---------------------------------|--------------------|-----------------------------|-------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Beginning of closing rows | Beet+ Boron | 3+2 | 2+1 | Providing nutrition during the period of enhanced formation of the leaf apparatus and the increase in the mass of the root crop |
| Closing rows | Beet+ Boron | 3+2 | 2+1 | Increasing the lifespan of leaves that have finished growing, intensifying photosynthesis and the outflow of sugars into the root crop |

* - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.



NOTES

| CUCUMBER (PUMPKIN) | | | | |
|---------------------------------|------------------------------|-----------------------------|----------------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Seed processing | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 6-8 leaves | PKMg+ Boron | 2+1 | 1 | Growth and development of the root system, of the leaf apparatus |
| Budding - flowering | Cucumbers+ Boron+ PKMg | 3+1+1 | 3+1 | Increase the efficiency of photosynthesis and synthesis of sugars, phosphorus mobility and root growth |
| | Magnesium Extra | 2 ¹ | 1 ¹ | Increase the efficiency of photosynthesis, increase in yield and quality of fruits |
| Fruit growth | Cucumbers+ PKMg+ Boron | 2+2+1 | 1+1+0,5 | Increase in yield and marketability of fruits |

¹ - do not mix Magnesium with other drugs;

* - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.

Consumption of working solution 200-300 l/ha.



| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|--|-----------------------|-----------------------------|----------------|---|
| | | extended | basic | |
| Seed processing | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| 6-8 leaves | PKMg+ Boron | 2+1 | 1 | Growth and development of the root system, of the leaf apparatus |
| Beginning of flowering | Magnesium Extra | 2 ¹ | 1 ¹ | Increase the efficiency of photosynthesis, increase in yield and quality of fruits |
| The beginning of the formation of ovaries | GH+ PKMg+ Boron | 3+1+1 | 3+1 | Increase the efficiency of photosynthesis and synthesis of sugars, phosphorus mobility |
| Fruit formation (one month before harvest) | GH+ PKMg+ Boron | 2+2+1 | 1+1+0,5 | Formation and preservation of the ovary |

* - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.

TOMATO AND OTHER NIGHTSHADE CROPS



NOTES

TOMATO AND OTHER NIGHTSHADE CROPS

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|---|--------------------|-----------------------------|----------------|--|
| | | extended | basic | |
| Tomato, pepper, eggplant | | | | |
| Seed processing | GH* | 2 ml/kg | - | Stimulation of development of the root system and optimization of nutrition in the early stages of growth |
| | Tomatoes* | - | 2 ml/kg | |
| 8-10 days after transplanting seedlings | PKMg | 2 | 1 | Growth and development of the root system, of the leaf apparatus, increasing resistance to adverse factors |
| | Ferrum | 1 | - | Growth and development of the leaf apparatus, photosynthesis activation |
| | Sulfur | 2 | 1 | Improving the development of vegetative mass, increasing the yield |
| Before flowering | GH+Boron | 3+1 | - | Development of the generative organs, improve the quality of flowering |
| | Tomatoes+ Boron | - | 2+1 | |
| Budding - beginning of flowering | Magnesium Extra | 2 ¹ | 1 ¹ | Increase the efficiency of photosynthesis, increase in yield and quality of fruits |
| Flowering - the formation of the ovary | GH | 3 | - | Improvement of fruits set, increased ovary preservation |
| | Tomatoes | - | 2 | |
| Fruit growth | Calcium | 5 ² | 3 ² | Prevention of tip rot development |
| Fruit ripening | GH+PKMg | 3+2 | - | Improved fruit color and quality, increased yield |
| | Tomatoes | - | 2 | |
| | | Calcium | 5 ² | 3 ² |

Highly recommended:

- ¹ - do not mix Magnesium with other drugs;
- ² - do not mix Calcium with other drugs;
- * - working solution - 1 part of fertilizer to 4 parts water. Seed treatment is carried out by spraying the prepared solution onto the surface of the seeds until completely wetted.

Consumption of working solution 200-300 l/ha.

APPLE, PEAR



NOTES

APPLE, PEAR

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|--|---------------------|-----------------------------|--------------------|--|
| | | extended | basic | |
| Mouse ear | Zinc+PKMg | 2+2 | 1+1 | Increasing resistance to low temperatures, the synthesis of phytohormones |
| Bud extension - green bud | «Ferrum+Zinc»+Boron | 2+1 | 2 | Increasing resistance to low temperatures, the synthesis of phytohormones and chlorophyll |
| Pink bud | Bud | 2 | 1 | Stimulation of flowering and fertilization, increasing the safety of flowers and ovary |
| Buds open - beginning of flowering | GH+Boron | 4+1 | 2+1 | Increased fruit set and ovary preservation |
| End of flowering - shedding of petals | Bud | 2 ¹ | 1 ¹ | Ovary preservation, reduced losses from summer fruit reduction |
| End of flowering - the formation of the ovary | Calcium | 4 ^{2,4} | 4 ^{2,4} | Formation of the fetus, prevention of physiological diseases of the fetus |
| The closure of the sepals in the fruit - a fruit the size of a hazel | GH Impulse | 2 | - | Increase in fetal size |
| | GH | - | 2 | |
| | Calcium | 5 ^{2,6} | 5 ^{2,6} | Prevention of physiological disorders of the fetus (bitter pitting, etc.) |
| Walnut fruit | GH | 3-4 ³ | 3 ³ | Fruit growth, fouling wood formation, bud differentiation |
| | Calcium | 5 ^{2,4} | 5 ^{2,4} | Prevention of physiological disorders of the fetus (bitter pitting, etc.) |
| Fruit growth (2-4 treatments with an interval of 7-10 days) | Calcium Form | 4-7 ^{2,4} | 4-7 ^{2,4} | Prevention of physiological disorders of the fetus (bitter pitting, etc.) |
| 1 week after harvest | Zinc+Boron | 2+1 ⁵ | - | Carbohydrate metabolism and accumulation of plastic substances in overgrown wood, increasing winter and frost resistance |
| 2 weeks after harvest | PKMg | 2 | - | Stimulation of growth and development of the root system, bud differentiation |
| After the first hard frost | Zinc+Boron | 2+1 ⁶ | - | Increasing winter and frost resistance, prevention of the development of diseases |

Highly recommended:

- ¹ - +2% urea solution;
- ² - do not mix Calcium with other drugs;
- ³ - together with chemical treatments;
- ⁴ - dosage and frequency of application depends on the varietal response;
- ⁵ - +0,5-0,7% urea solution;
- ⁶ - +5-7% urea solution.

Consumption of working solution 300-1000 l/ha.

STONE FRUITS



NOTES

| STONE FRUITS | | | | |
|---|--------------------|-----------------------------|------------------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Mouse ear | Zinc | 2 | - | Increasing resistance to low temperatures, the synthesis of phytohormones |
| Bud extension - green bud | «Ferrum+ Zinc» | 2 | 1 | Increasing resistance to low temperatures, the synthesis of phytohormones and chlorophyll |
| Budding - beginning of flowering | Bud | 2 | 1 | Stimulation of flowering and fertilization, increasing the safety of flowers and ovary |
| Buds open - beginning of flowering | GH+Boron | 3+1 | 2+1 | Increased fruit set and ovary preservation |
| End of flowering - shedding of petals | Bud | 2 | 1 | Ovary preservation, reduced losses from summer fruit reduction |
| End of flowering | Calcium | 4 ¹ | 4 ¹ | Formation of the fetus, prevention of physiological diseases of the fetus |
| Fruit growth (2-3 treatments with an interval of 7-10 days) | Calcium Form | 4-7 ¹ | 4-7 ¹ | Formation of the fetus, prevention of physiological diseases of the fetus |
| After harvest | PKMg | 2 ² | - | Stimulation of growth and development of the root system, bud differentiation |
| After the first hard frost | Zinc+ Boron | 2+2 ³ | - | Increasing winter and frost resistance, prevention of the development of diseases |

Highly recommended:

- ¹ - do not mix Calcium with other drugs;
- ² - +0,5-0,7% urea solution;
- ³ - +5-7% urea solution.

Consumption of working solution 300-1000 l/ha.

Notes

GARDEN STRAWBERRY



NOTES

GARDEN STRAWBERRY

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|---|-----------------------------|-----------------------------|----------------|--|
| | | extended | basic | |
| The beginning of regrowth - the appearance of young leaves | «Ferrum+ Zinc» | 2 | - | Increasing resistance to low temperatures, the synthesis of phytohormones |
| | PKMg | 2 ¹ | 2 ¹ | Improving the growth and development of plants, stimulation the laying of reproductive organs |
| Promotion of inflorescences - isolation of buds | GH+ Boron | 3+2 | 2+1 | Stimulation of flowering and fertilization, increasing the safety of flowers and ovary |
| Beginning of flowering | Calcium | 5 ² | 3 ² | Prevention of fruit deformation, increase in the density of berries |
| End of flowering | Calcium | 5 ² | 3 ² | Improving the consumer and commercial qualities of berries, increasing their shelf life |
| The formation of the ovary - fruit growth | GH | 3 | 2 | Improving the consumer and commercial qualities of berries, increasing in average berry weight |
| After harvest | «Ferrum+ Zinc»+ Boron | 2+1 | - | Accumulation of plastic substances, increasing winter and frost resistance |

Highly recommended:
¹ - with a low content of mobile forms of phosphorus in the soil;
² - do not mix Calcium with other drugs.

Consumption of working solution 200-400 l/ha.

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RASPBERRY, BLACKBERRY



NOTES

| RASPBERRY, BLACKBERRY | | | | |
|--|-----------------------------|-----------------------------|----------------|--|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| The beginning of regrowth | PKMg | 2 | - | Stimulation of development of the root system and optimization of nutrition |
| Shoot growth - budding | «Ferrum+ Zinc»+ Boron | 2+1 | 2+1 | Increase the efficiency of photosynthesis, strengthening of growth processes |
| Budding - beginning of flowering | Bud | 2 | 1 | Stimulation of flowering and fertilization, increasing the safety of flowers and ovary |
| Beginning of flowering | Calcium | 5 ¹ | 3 ¹ | Prevention of fruit deformation, increase in the density of berries |
| End of flowering | Calcium | 5 ¹ | 3 ¹ | Improving the consumer and commercial qualities of berries, increasing their shelf life |
| Fruiting | GH Impulse | 2 | - | Improving the consumer and commercial qualities of berries, increasing in average berry weight |
| | GH | - | 2 | |
| After harvest | «Ferrum+ Zinc»+ Boron | 2+1 | - | Accumulation of plastic substances, increasing winter and frost resistance |

Highly recommended:
¹ - do not mix Calcium with other drugs.
Consumption of working solution 200-500 l/ha.

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BLUEBERRY



NOTES

| BLUEBERRY | | | | |
|---|--------------------------------------|-----------------------------|--------------------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Swelling - buds open | PKMg+ «Ferrum+ Zinc» | 2+2 | 1+1 | Stimulation of development of the root system and optimization of nutrition, increasing resistance to low temperatures the synthesis of phytohormones |
| Appearance of the first leaves | Blueberry | 3 | - | Increase the efficiency of photosynthesis, strengthening of growth processes |
| Leaf development | Blueberry+ Boron | 3+1 | 2+1 | Stimulation of flowering and fertilization, increasing the safety of flowers and ovary |
| Pink bud - beginning of flowering | Calcium+ Boron | 3 ¹ +1 | 3 ¹ +1 | Stimulation of flowering and fertilization, increasing the safety of flowers and ovary |
| | Blueberry | 3 | - | Increasing the safety of flowers and ovary, bush habit improvement |
| Fall of flowers - early green fruits | Calcium | 3 ¹ | 3 ¹ | Improving the consumer and commercial qualities of berries, increasing in average berry weight |
| Late green fruit - coloring of berries | Calcium | 3 ¹ | 1 ¹ | Improving the consumer and commercial qualities of berries, increasing their shelf life |
| After harvest | «Ferrum+ Zinc»+ PKMg+ Boron | 2+2+2 ² | 1+1+1 ² | Differentiation of fruit buds, accumulation of plastic substances, increasing winter and frost resistance |

Highly recommended:

- ¹ - do not mix Calcium with other drugs;
- ² - +0,5-0,7% urea solution.

Consumption of working solution 200-500 l/ha.

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CURRANT AND GOOSEBERRY



NOTES

CURRENT AND GOOSEBERRY

| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
|---|-----------------------|--------------------------|------------------|---|
| | | extended | basic | |
| Kidney swelling - green cone | PKMg | 2 ¹ | - | Stimulation of development of the root system and optimization of nutrition |
| Promotion of inflorescences - isolation of buds | «Ferrum+ Zinc»+ Boron | 2+1 | 2+1 | Increase the efficiency of photosynthesis, strengthening of growth processes |
| Budding - beginning of flowering | Bud+ GH | 2+2 | 1+2 | Stimulation of flowering and fertilization, increasing the safety of flowers and ovary |
| Pouring berries | GH Impulse | 2 | - | Improving the consumer and commercial qualities of berries, increasing in average berry weight |
| | GH | - | 2 | |
| After harvest | «Ferrum+ Zinc»+ PKMg | 2+2 ² | 1+1 ² | Differentiation of fruit buds, accumulation of plastic substances, increasing winter and frost resistance |

Highly recommended:

¹ - with a low content of mobile forms of phosphorus in the soil;

² - +0,5-0,7% urea solution.

Consumption of working solution 200-500 l/ha.

Notes

GRAPE



NOTES

| GRAPE | | | | |
|---|-----------------------------|-----------------------------|------------------|---|
| Processing time (phenophase) | Brand KompleMet | Application scheme, l/ha | | Expected result |
| | | extended | basic | |
| Swelling - bud break | «Ferrum+ Zinc»+ PKMg | 2+2 ¹ | 1+1 ¹ | Stimulation of growth and development of the root system, increasing resistance to low temperatures the synthesis of phytohormones |
| Shoot growth | GH+ «Ferrum+ Zinc» | 3+1 | 2+0,5 | Stimulation of growth and development of the root system, increasing resistance to low temperatures the synthesis of phytohormones |
| Formation and growth of inflorescences - beginning of flowering | Bud | 2 | 1 | Stimulation of flowering and fertilization, increasing the safety of flowers and ovary |
| beginning of flowering | Boron | 1 | 1 | Improve the quality of flowering, improvement of berry set, uniform filling of brushes |
| Berry growth (2-3 treatments with an interval of 7-10 days) | Calcium | 5 ² | 3 ² | Improving the consumer and commercial qualities of berries |
| | GH Impulse | 2 | - | Increase in average berry size and bunch weight |
| | GH | - | 2 | |
| Ripening berries | PKMg | 2 ¹ | - | Improving the consumer and commercial qualities of berries, increasing in average berry weight |
| After harvest | «Ferrum+ Zinc»+ Boron | 2+1 | 1+1 | Differentiation of fruit buds, accumulation of plastic substances, increasing winter and frost resistance |

Highly recommended:

¹ - with a low content of mobile forms of phosphorus in the soil;

² - do not mix Calcium with other drugs.

Consumption of working solution 200-500 l/ha.

Notes

MISCIBILITY OF FERTILIZERS KOMPLEMET AND PESTICIDES

The use of KompleMet fertilizers in tank mixtures with plant protection products (PPP) allows saving funds for treatments and, in some cases, achieving a synergistic effect, reducing the hectare dosage of the drug by 10-20%.

Fertilizers KompleMet* contain nutrient elements in the form of chelates, due to which they are sufficiently inert with respect to pesticide solutions. Before using them, you should familiarize yourself with the basic rules for mixing drugs:

1. When mixing KompleMet fertilizers with PPPs represented by dry preparative forms (wetable powders, waterdispersible granules, water-soluble bags), the preparation of the tank mixture begins with PPP: the sprayer tank is filled 1/3-1/2 with water, the agitator is turned on and dissolved pesticides. After their complete dissolution, water is added and fertilizers are added.

2. If oil-based plant protection products are used in the tank mixture, they are added only after complete dissolution of dry preparations and only then KompleMet fertilizers are added. The addition of oil-based PPPs to the fertilizer solution in some cases leads to stratification of the working solution. Mixing oil-based PPP and KompleMet Boron can cause segregation of the working solution, so it is imperative to check compatibility before mixing them.

| | | | | | |
|--------------------------|---|---|---|---|---|
| Rapeseed | + | | | | |
| OH (Garden horticulture) | + | + | | | |
| Potato | + | + | + | | |
| Tomatoes | + | + | + | + | |
| Cucumber | + | + | + | + | + |

3. Water-based products should be added to the tank mix after all ingredients have been dissolved.

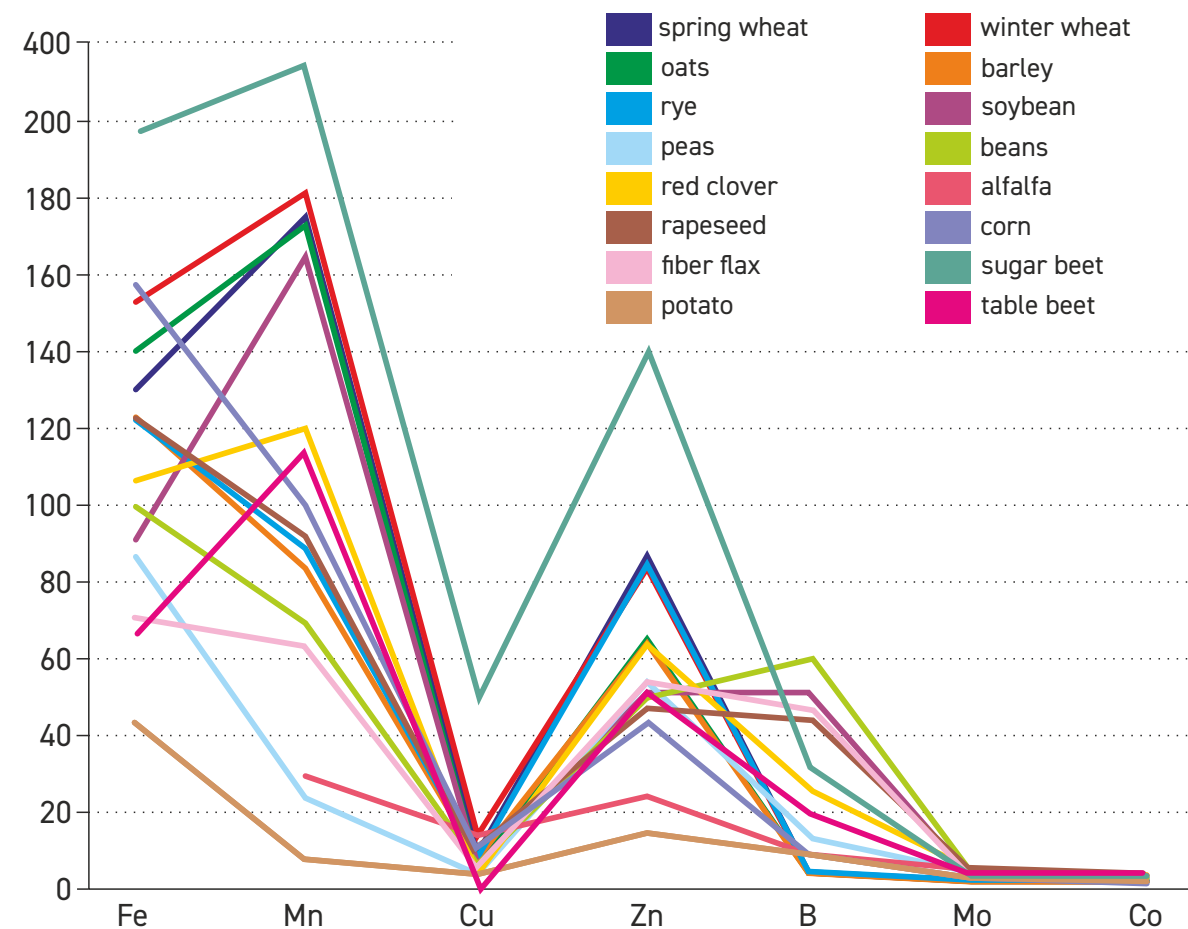
4. Avoid mixing calcium fertilizers with organophosphate pesticides. This can be the cause of both separation of the solution and burns of cultivated plants.

* KompleMet Calcium, KompleMet Calcium Form, KompleMet Magnesium are presented in the form of a mineral salt.

To check the compatibility of drugs, fill the container with water from the same source as in the sprayer tank. Add drugs and add water in the same sequence and ratio as in the sprayer tank. Mix the solution thoroughly and let it stand for 20-30 minutes. Assess visually the homogeneity of the mixture.

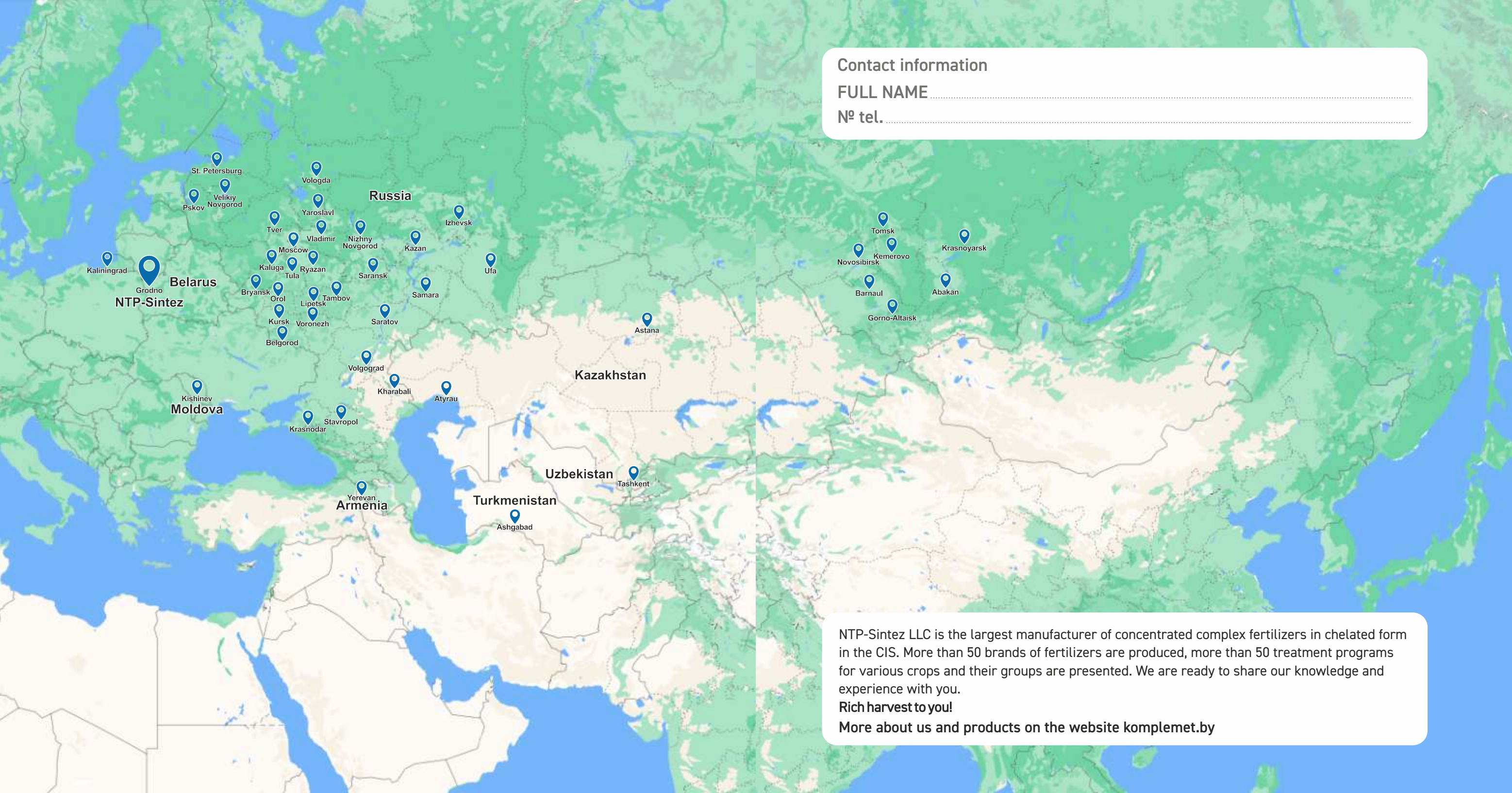
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|----------|--------------------------|--------|----------|-----------|-------|------|------|------|---------|-----------|--------|----------|-------------|--------|-----------|--------|------|------------|-------|---------|---------------|--------------|-----------|-----------------|----|------|------|--------|-----|-----------------|---------------|--------------|------------------|-----------------------------|--------|-------|--------------|--|--|
| Rapeseed | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GH (Garden Horticulture) | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Potato | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tomatoes | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cucumbers | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grain | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Corn | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Beet | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flax | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Legumes | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blueberry | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cotton | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Resource | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ferrum+Zinc | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ferrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Boron | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | |
| Calcium | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | | | | | | | | | | | | | | | | | | | |
| Calcium Extra | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | + | | | | | | | | | | | | | | | | | | |
| Calcium Form | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | + | + | | | | | | | | | | | | | | | | | |
| Magnesium | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | + | + | + | | | | | | | | | | | | | | | | |
| Magnesium Extra | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | + | + | + | + | | | | | | | | | | | | | | | |
| PK | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | |
| PK-2 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | |
| PKMg | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | |
| Sulfur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | |
| Bud | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | |
| Legumes Impulse | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | |
| Grain Impulse | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | |
| Corn Impulse | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | |
| Rapeseed Impulse | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | |
| Garden-Horticulture Impulse | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | |
| Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Start | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Flax Impulse | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Brand KompleMet | Rapeseed | GH (Garden Horticulture) | Potato | Tomatoes | Cucumbers | Grain | Corn | Beet | Flax | Legumes | Blueberry | Cotton | Resource | Ferrum+Zinc | Ferrum | Manganese | Copper | Zinc | Molybdenum | Boron | Calcium | Calcium Extra | Calcium Form | Magnesium | Magnesium Extra | PK | PK-2 | PKMg | Sulfur | Bud | Legumes Impulse | Grain Impulse | Corn Impulse | Rapeseed Impulse | Garden-Horticulture Impulse | Active | Start | Flax Impulse | | |

SPECIFIC CONTENT OF ELEMENTS IN CULTURES, MG/KG



FOR GARDEN AND VEGETABLE GARDEN





Contact information

FULL NAME

Nº tel.

NTP-Sintez LLC is the largest manufacturer of concentrated complex fertilizers in chelated form in the CIS. More than 50 brands of fertilizers are produced, more than 50 treatment programs for various crops and their groups are presented. We are ready to share our knowledge and experience with you.

Rich harvest to you!

More about us and products on the website komplemet.by