### Fertilizer description

<table>
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<tr>
<th>Fertilizer</th>
<th>Chemical composition (%)</th>
<th>Fertilizer description</th>
</tr>
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<tbody>
<tr>
<td>Calcium nitrate</td>
<td>(m/m)</td>
<td>Calcium nitrate in liquid form. Easy to dissolve in water. Mixable with the majority of plant protection goods. Recommended for increasing calcium concentration in fruits by spraying trees from fruitlets development to the fruit harvest. Available in 10 and 20 liter cans.</td>
</tr>
<tr>
<td>Azosol 36 Extra</td>
<td>(v/v)</td>
<td>Multielemental liquid fertilizer containing nitrogen (N), magnesium (Mg), and microelements. Microelement chelated with biodegradable agent IDHA. Recommended especially in the spring during intensive plant growth. Available in 10 and 20 liter cans.</td>
</tr>
<tr>
<td>ADOB ProFit 18-18-18 + mikro</td>
<td></td>
<td>Multielemental crystalline fertilizer containing nitrogen (N), phosphorus (P), potassium (K), magnesium (Mg) and microelements. Microelement chelated with biodegradable agent IDHA. Excellent solubility in water. Recommended especially during intensive plant growth. Available in 5 and 15 kg bags.</td>
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<td>Multielemental crystalline fertilizer containing nitrogen (N), phosphorus (P), potassium (K), magnesium (Mg) and microelements. Microelement chelated with biodegradable agent IDHA. Excellent solubility in water. Due to high P content recommended especially in the period of high plant demand for phosphorus (root development and growth, fruitlets growth, fruit colour development) and when P uptake from soil could be limited. Available in 5 and 15 kg bags.</td>
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<tr>
<td>ADOB ProFit 4-12-38 + mikro</td>
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<td>Multielemental crystalline fertilizer containing nitrogen (N), phosphorus (P), potassium (K), magnesium (Mg) and microelements. Microelement chelated with biodegradable agent IDHA. Excellent solubility in water. Due to high K content recommended especially in the period of high plant demand for potassium (after blooming, at the end of branch elongation, for better fruit colour development) and when K uptake from soil could be limited. Available in 5 and 15 kg bags.</td>
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<tr>
<td>ProFit Zn EDTA/IDHA</td>
<td>(v/v)</td>
<td>Microelemental fertilizer in the form of microgranules containing zinc (Zn) chelated with standard EDTA or (optionally) biodegradable agent IDHA. Recommended especially for early spring applications and when symptoms of Zn deficiency have appeared. Available in 2.5 and 20 kg bags.</td>
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<tr>
<td>Adob Bor</td>
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<td>Liquid fertilizer with high concentration of plant available boron. Recommended for application during the high plant demand for boron (bud development, blooming) and when the uptake of boron from soil could be limited. Available in 10 and 20 liter cans.</td>
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<td>ADOB ProFit micro</td>
<td>(v/v)</td>
<td>Liquid fertilizer with 6 standards microelements necessary for plant growth chelated with EDTA (except for B and Mo). High concentration of microelements results in high nutritional efficiency of that nutrient composition, especially during the intensive plant growth period. Available in 10 and 20 liter cans.</td>
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### Foliar mineral nutrition program of stone fruit trees

Foliar fertilization of stone fruit crops is one of the most efficient way of supplying plants with nutrients – especially when the uptake of nutrients from soil is limited. It is a perfect complementary nutrition to the standard soil fertilization which allows to get not only high yield of fruit but also high fruit quality.
Nutritional needs of fruit trees vary significantly depending on species, variety, rootstock which is used and the age of trees. Species belonging to the group of stone-fruits, especially the most commonly cultivated trees in Poland, namely plums, cherries and sweet cherries, have much bigger nutritional needs than apple and pear trees. This applies mainly to nitrogen and potassium, as well as to trace elements, mainly boron, zinc, iron and manganese. Stone-fruit trees develop flowers first and only later leaves, which means that in early spring the trees mainly use nutrients contained in shoots during the summer or autumn of the previous year. Therefore, it is recommended to fertilize stone-fruit trees intensively in the late spring/early summer and after the harvest, especially with foliar fertilizers.

The programme of foliar fertilization offered by ADOB perfectly complements standard soil fertilization of fruit trees based mainly on soil analysis. It allows for selecting appropriate fertilizers, which are characterised not only by high quality and solubility in water but also by ideal absorption of macro nutrient and microelements by plants. The recommended doses of fertilizers take into account growth and development stages of the trees, which considerably increases the efficiency of nutrients supplied in the fertilizers.

### Foliar mineral nutrition program of stone fruit trees.

<table>
<thead>
<tr>
<th>Application method</th>
<th>N</th>
<th>Fertilizer</th>
<th>Composition</th>
<th>dosage</th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Spraying trees once with a solution with the concentration of 0.3% - 0.5%.</td>
<td></td>
<td>ADOB ProFit 18-18-18 + mikro</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spraying trees with aqueous solution of fertilizers from the beginning of blooming until fruit setting every 3-5 days.</td>
<td></td>
<td>ADOB Bor 4-12-38 + mikro</td>
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**Fertilizer application period / Vegetative stage**
- very early spring – buds swelling
- white bud / beginning of blooming
- full bloom
- end of blooming
- beginning of fruit buds
- growth of fruit buds until the beginning of maturation
- after harvest

**Fertilization objective**
- strengthening trees’ resistance to stressful conditions, especially low temperatures in the spring
- improving fruit setting through the supply of boron to trees
- improving fruit setting through the supply of boron to trees
- improving the supply of necessary microelements to trees
- improving the supply of calcium to fruit buds
- improving the supply of calcium to fruit buds
- improving the supply of calcium to fruit buds
- improving the supply of calcium to fruit buds
- supplying nutrients to trees to prepare trees for dormant period

**N**
- N
- N
- N
- N
- N
- N
- N
- N
- N

**Fertilizer**
- ADOB ProFit
- ADOB ProFit
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- ADOB ProFit
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- ADOB ProFit
- ADOB ProFit
- ADOB ProFit

**Single fertilizer dosage**
- 3-5 kg/ha
- 2-3 kg/ha
- 2-3 kg/ha
- 2-3 kg/ha
- 2-3 kg/ha
- 3-5 kg/ha
- 3-5 kg/ha
- 2-3 kg/ha
- 2-3 kg/ha

**Application method**
- spraying trees once with a solution with the concentration of 0.3% - 0.5%.
- spraying trees with aqueous solution of the fertilizer from the beginning of blooming until fruit setting every 3-5 days.
- spraying trees with aqueous solution of fertilizers every 3-5 days. The application must be conducted in the late afternoon or in the evening. In the case of rain within 3-6 hours after the application, the spraying must be repeated.
- spraying trees with aqueous solution of fertilizers from the beginning of blooming until fruit setting every 7-10 days.
- spraying trees 2-3 times with aqueous solution of fertilizers every 7-10 days. Application recommended especially in the periods of droughts or intensive rain falls.
- spraying trees from the moment of fruit setting until maturation every 7-10 days
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- spraying trees 2-3 times with aqueous solution of the fertilizer every 10-14 days. In the case of rain within 3-6 hours after the application, the spraying must be repeated.
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Fertilizer application period /Vegetative stage | Fertilization objective | Fertilizer | Single fertilizer dosage | Application method |
--- | --- | --- | --- | --- |
Very early spring – buds swelling | Strengthening trees’ resistance to stressful conditions, especially low temperatures in the spring | ADOB ProFit 18-18-18 + mikro/ADOB ProFit 36 Extra | 3-5 kg/ha | Spraying trees once with a solution with the concentration of 0.3%-0.5%. |
White bud/ beginning of blooming | Strengthening flower buds through improved supply of nitrogen and magnesium to trees | ADOB ProFit 18-18-18 + mikro | 3-5 kg/ha | Spraying trees with aqueous solution of the fertilizer from the beginning of blooming until fruit setting every 3-5 days. |
| | Improving fruit setting through the supply of boron to trees | ADOB Bor | 2-3 l/ha | Spraying trees with aqueous solution of fertilizers every 3-5 days. The application must be conducted in the late afternoon or in the evening. In the case of rain within 3-6 hours after the application, the spraying must be repeated. |
Full bloom | Improving fruit setting through the supply of boron to trees | ADOB Bor | 5-7 l/ha | Spraying trees with aqueous solution of fertilizers every 3-5 days. The application must be conducted in the late afternoon or in the evening. In the case of rain within 3-6 hours after the application, the spraying must be repeated. |
End of blooming | Improving the supply of necessary microelements to trees | ADOB ProFit micro | 2-3 l/ha | Spraying trees with aqueous solution of the fertilizer from the beginning of blooming until fruit setting every 7-10 days. |
Development and beginning of fruit buds | Improving fruit buds’ growth through the supply of boron to trees | ADOB Bor | 3-5 l/ha | Spraying trees from the moment of fruit setting until maturation every 7-10 days. |
| | Strengthening the growth of fruit buds through the supply of macro and micro nutrients to trees | ADOB ProFit 18-18-18 + mikro | 3-5 kg/ha | Spraying trees 1-2 times with aqueous solution of fertilizers every 3-5 days. The application must be conducted in the late afternoon or in the evening. In the case of rain within 3-6 hours after the application, the spraying must be repeated. |
| | Improving the supply of calcium to fruit buds | Calcium nitrate | 3-4 l/ha | Spraying trees with aqueous solution of the fertilizer every 7-10 days. In the case of rain within 3-6 hours after the application, the spraying must be repeated. |
| | Improving the supply of micro elements to trees | ADOB ProFit micro | 2-3 l/ha | Spraying trees with aqueous solution of the fertilizer every 7-10 days. In the case of rain within 3-6 hours after the application, the spraying must be repeated. |
| | Improving fruit blushing through the supply of the necessary macro nutrients, mainly potassium to the maturing fruit | ADOB ProFit 4-12-38 + mikro | 3-5 kg/ha | Spraying trees 1-2 times with aqueous solution of fertilizers every 3-5 days. The application must be conducted in the late afternoon or in the evening. In the case of rain within 3-6 hours after the application, the spraying must be repeated. |
| | Improving the supply of calcium to fruit buds | Calcium nitrate | 3-4 l/ha | Spraying trees with aqueous solution of the fertilizer every 7-10 days. In the case of rain within 3-6 hours after the application, the spraying must be repeated. |
| Growth of fruit buds until the beginning of maturation | | | | |
| | After harvest | Supplying nutrients to trees to prepare trees for dormant period | ADOB ProFit 4-12-38 + mikro/ADOB ProFit 18-18-18 + mikro | 6-10 kg/ha | Spraying trees 2-3 times with aqueous solution of fertilizers every 7-10 days. Fertilization should be conducted by mid August at the latest, while ADOB ProFit 4-12-38 + mikro should be used in the last applications. |
| | | | | |
| | | | | |

**Stone fruit trees**

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