Asparagus

The fertilization of asparagus

The Italian production of asparagus is almost entirely destined for the fresh market, which requires high quality standards, achievable only with adequate cultivation techniques, where fertilization plays a considerable role. In this regard, it is necessary to distinguish between **production fertilization and planting fertilization** and, in the second case, between planting of "legs" or by transplanting seedlings from seedbeds. This last method is gaining more and more favor from the farmer due to the lower economic investment necessary, though the entry into full production of the asparagus is delayed by one / two years and the productive duration could be shorter.

Fertilization of the planting

It is necessary to consider the asparagus production time horizon which, depending on the type of plant and the nature of the soil, can last from eight to twelve years and more. It will therefore be appropriate to provide an abundant basic fertilization with important contributions of phosphorus and potassium, in order to constitute an adequate reserve for the asparagus. In general, the furrow dug for the planting of the legs, in the first year of planting, is not completely filled to facilitate the release of young shoots. The furrow filling operation is completed with one or two tamping in the following years. Before these operations it is good practice to complete the basic fertilization, which will be localized on the rows due to the tamping effect. In the case of transplanting alveolate seedlings, it will be necessary to distribute the entire dose before plowing. The soil structure is important for the quality of the shoots, which particularly suffer from both water stagnation and surface compaction. It is therefore necessary to distribute adequate quantities of **humified organic matter**, both during the planting phase and throughout the productive life of the asparagus, to maintain an optimal soil structure that favors the shoot release. For the planting fertilization, UNIMER recommends **DIABLO S**, an organo-mineral fertilizer with low chlorine content, **NPK (Ca-S) 9-12-18 (8-15)** with **boron**, **iron** and **zinc**, characterized by the completeness of its formula that makes available to the crop macroelements, meso and microelements, fundamental to ensure the correct nutrition in the initial stages of development. The addition of humified organic substance, which is important for maintaining an adequate physical structure of the soil, can be carried out with the use of **MICROLIFE**, a **soil improver manure added with a specific inoculum of fungi and bacteria of the rhizosphere** which adds to the amending action of the manure the stimulating and protective action of the selected microbial consortium.

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The nitrogen fertilization at the shoot release

Nitrogen fertilization must be carried out when the shoots come out, which should not be harvested in the first year to avoid excessive exploitation of the reserve substances contained in the "legs", to favor the vegetative development of the plant. For this purpose, the nitrogenous organo-mineral fertilizer **SUPER AZOTEK N 32 (S7)** is recommended, containing **nitrogen** and an important supply of **sulfur**, a nutritional element that contributes to the protein synthesis of the plant. **SUPER AZOTEK N 32 is characterized by the presence of nitrogen forms with differentiated release mediated by the humified organic substance.** The particular formulation allows a slow and lasting release of nitrogenous forms allowing maximum exploitation of the nutritional element. In the first year of planting, it is advisable to repeat the nitrogen fertilization at the beginning of summer to maintain an optimal photosynthetic activity, which allows to easier "recharge" the root system and obtain a larger size of the shoots already in the following year.

Plants in production

To maintain a soil structure that favors the development and release of the shoots, it is advisable to distribute the humified organic substance at the end of the winter with the shredding of the vegetative part developed in the previous year. As an alternative to **MICROLIFE**, it is also possible to use **SUPERSTALLATICO**, **highly humified cattle and horse manure soil conditioner**; for a 100% vegetable fertilization **GREEN POWER, peaty compound soil conditioner**, obtained with a humification process of vegetable materials and peat. This operation allows to exploit the crop residues and favors their better transformation, which then further enables the maintenance of an adequate level of organic substance in the soil. At the end of winter, it is advisable to reintegrate the main nutritional elements through the distribution of **VICTORY S**, an organo-mineral fertilizer **NPK (Mg-S) 4-8-16 (2-14)**, which in addition to **sulfur** contains **magnesium**, a fundamental element for chlorophyll photosynthesis.

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Nitrogen fertilization at the end of harvest

In the production plants it is necessary to carry out a nitrogen fertilization at the end of the harvest, in order to support the vegetative activity of the plant to restore the energy reserves of the roots, allowing the achievement of a greater number of shoots of good diameter the following year. **SUPER AZOTEK N32**, thanks to the **slow and gradual release of nitrogen**, allows the crop a full support until the end of the cycle.

Organic farming

UNIMER recommends **ARMONY S, NPK (Mg-S) 4-8-10 (2-8)** organo-mineral fertilizer for plant fertilization and for maintenance fertilization at the end of winter; **ENDURANCE N8**, organic **nitrogen fertilizer** with **iron** and **zinc** for spring or late harvest application.