

## TopStim N13, organic fertiliser

**Manufacturer: TONAK a.s., Zborovská 823, CZ-741 01 Nový Jičín**

**Registration number: 4194**

### Physical and chemical properties:

Property:	Value:
Dry matter percentage	≥ 28.0%
Combustible material in dried sample in %	≥ 93.5%
Total nitrogen as N in dried sample in %	≥ 12.5%
pH	5,6 - 8,1
C/N ratio	≤ 5

**The hazardous element contents** comply with the following legal limits (mg/kg of dry matter): cadmium 2; lead 100; mercury 1,0; arsenic 20; chromium 100; molybdenum 20; nickel 50; copper 150; zinc 600.

TopStim N13 is a natural organic nitrogenous fertiliser where the source of nitrogen is liquid collagen from rabbit and hare skin, by-products from TONAK a. s., Nový Jičín. The organic nitrogen is bound to a mixture of collagen amino acids, mainly glycine, proline, hydroxy-proline, alanine and glutamic acid. The nitrogen is released gradually in the soil.

The fertiliser supports even ripening and increases the yield and quality of the fruits - their size, evenness, colouration, firmness, storability, nutritional value and taste. The fertiliser can be applied on plants exposed to stress factors (frost, hailstorm, droughts, extremely high/low temperatures, plant diseases and pests), improving their resistance and regenerative capabilities.

### Scope and method of use:

The fertiliser is used for field crops, cereals, vegetables, fruits, in orchards, vineyards, for decorative flowers, lawns, forest stands, and for application in greenhouses and under plastic sheets.

Apply the fertiliser before sowing or planting for fertilisation of agricultural land, vegetable and fruit plantations. The fertiliser may also be used for additional fertilisation during the vegetation period of decorative plants and other crops, foliage application is possible.

For foliage application dilute the fertiliser in a fertiliser/water ratio of 1:50. In order to increase the fertilising effect, best apply the product in high air humidity, windless and low sunshine intensity conditions, for example in early morning or at twilight. The effect, however, is lower if the product is applied in rain. A crop sprayer is suitable for leaf application.

For root nutrition apply the product as an aqueous solution at a fertilizer/water ratio of 1:10.

**Do not apply the fertiliser to edible parts of the crop.**

### Additional guidelines for use:

1. No limitations are imposed on application on arable soil without farm animal access, with working into the soil.
2. Any application on soil with farm animal access (pastures, meadows for farm animal fodder harvest, plants grown on arable soil for farm animal feeding, etc.) must be reported to ÚKZÚZ (Central Institute for Supervising and Testing in Agriculture).
3. After a minimum of 21 days from the last application, the soil may be used for pasture or the plant growth may be used for farm animal feeding with ÚKZÚZ consent only.
4. ÚKZÚZ may extend the period of pasture or use for feeding ban pursuant to section 3 above (21 days) for the sake of human and animal health protection.
5. If the fertiliser was used on soil with farm animal access or on soil used for fodder harvesting, information about the fertiliser quantity must be entered in the record on the fertiliser use together with the date and place of application as well as the date starting from which ÚKZÚZ permitted pasture on or fodder harvesting from the fertilised land.

<b>Recommended dosage:</b>			
<b>Crop</b>	<b>Basic fertilisation (soil)</b>	<b>Foliage application</b>	
	<b>(l/ha)</b>	<b>(l/ha)</b>	<b>Number of applications</b>
On arable soil/large-scale application			
Grains	400 - 1100	4 - 10	1 - 4
Roots and tubers	600 - 1150	4 - 10	1 - 4
Oil plants	800 - 1250	4 - 10	1 - 4
Fodder plants	350 - 550	4 - 10	1 - 4
Vegetables	300 - 900	4 - 8	1 - 4
Maize	850 - 1350	4 - 10	1 - 4
Grassland	300 - 1250	4 - 10	1 - 4
Fruit trees	350 - 550	4 - 10	1 - 4
Vineyards and fruit shrubs	600 - 800	4 - 10	1 - 4
Horticulture/small-scale application			
Roots and tubers	<b>(ml/m<sup>2</sup>)</b> 60 - 115	<b>(ml/m<sup>2</sup>)</b> 0,4 - 1,0	<b>Number of applications</b> 1 - 4
Vegetables	30 - 90	0,4 - 0.8	1 - 4
Grassland	30 - 125	0,4 - 1,0	1 - 4
Fruit trees	35 - 55	0,4 - 1,0	1 - 4
Strawberries	60 - 80	0,4 - 0.8	1 - 4
Decorative flowers	60 - 80	0,4 - 0.8	1 - 4
Vineyards and fruit shrubs	60 - 80	0,4 - 1,0	1 - 4

The recommended dosage is an informative benchmark. The dose must be adapted to the need of the crop and the results of soil analysis. Mix the fertiliser before use. TopStim N13 is classified as an organic fertiliser with quick-release nitrogen.

**The maximum application dose is 20 tons of dry matter per hectare during 3 years.**

**Security and work safety precautions:** Protein hydrolysates are harmless to health and their adverse effects are rare. Still, observance of standard principles of personal hygiene and occupational safety is recommended. Do not eat, drink or smoke while working. Wear protective gloves. Wash hands thoroughly with soap and water after work and treat skin with a regeneration cream.

**First aid:** If in eyes, rinse eyes under a stream of clean water. If swallowed, rinse mouth and drink about 0.5 l of water. If on skin, wash with soap and water. If severe symptoms such as an allergic reaction are present, seek medical attention. Seek medical help always when the product gets in contact with eyes or in serious cases of swallowing. Inform the doctor about the product the affected person worked with and the first aid provided, moreover show the product packaging, label or delivery note.

**Storage conditions:** Keep out of the reach of children and pets. Store in original undamaged packaging at a dark place at +5°C to +18°C in a dry, clean, sanitised and ventilated warehouse with impermeable floor, separated from foods, beverages, feeds, drugs, disinfectants and packagings of these. Odour can be generated on long-term storage. The effect or usability of the fertiliser, however, remain unaffected.

**Package sizes:** TopStim N13 is supplied in 1000 l IBC containers or 20 l canisters.

**Package weight:**

**Shelf life:** 5 years from the production date provided that the storage conditions are fulfilled

**Production date:**

**Lot number:**

**This product can be used in organic farming pursuant to Council Regulation (EC) No 834/2007 and Commission Regulation (EC) No 889/2008 on organic production and labelling of organic products.**