



For stress reduction

MAXPROLIN – a biostimulator increasing the natural resistance of plants to the stress.

It contains L- α proline (amino acid) easily assimilated by plants that has a multiple effect on the growth and development of plants and performs a protective function of cells as well as helps to adapt under adverse environmental conditions. L- α proline balances the metabolism processes of vital substances and compensates their shortage.

Benefits:

- Reduces consequences of draught, temperature variations, waterlogging
- Increases accumulation of sugars in cells and resistance of plants to winter stress
- Improves metabolism and enhances the effect of other enzymes
- Enhances formation of pollen and embryogenesis
- Increases productivity and quality of harvest

Specification

Composition: L- α proline (purity 99,5 %).

Application rate: 2 - 5 g/ha.

Application time: on the leaves of plants before manifestation of adverse conditions: frost, freeze, draught, etc.

Packaging: 20 g box (powder).

Can be mixed with pesticides or fertilisers unless otherwise indicated on the manufacturer's labelling.

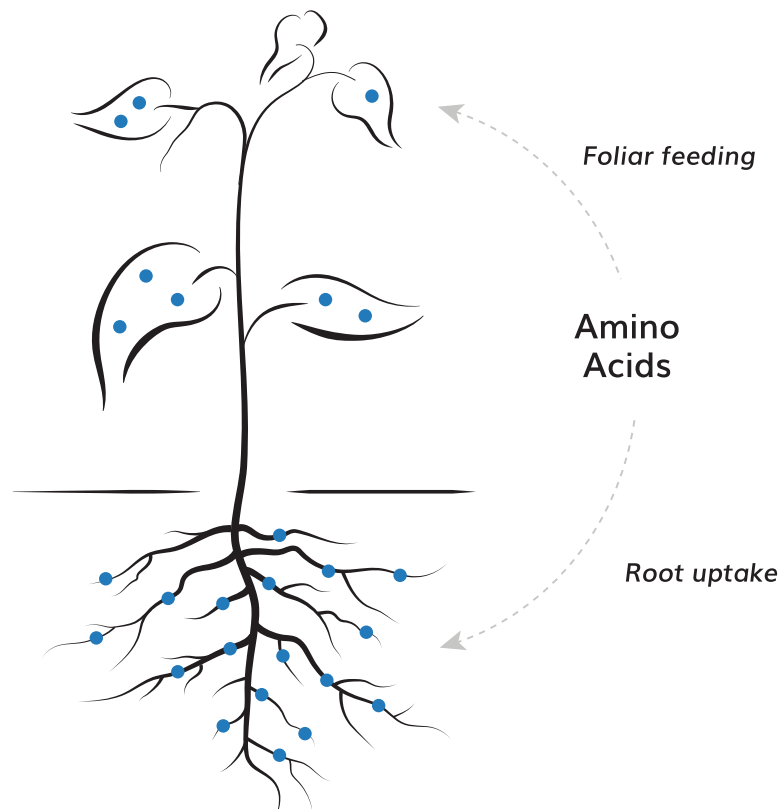


APPROVED FOR ORGANIC FARMING

Introduction

Proline is an amino acid with exceptional conformational stiffness and it is essential for primary metabolism. The product is designed to reduce biotic and abiotic plant stress. It regulates the absorption of micro and macro elements and stimulates the natural resistance mechanisms in plants.

Figure 1.



Challenges

In case of unfavourable growth conditions, the vital processes of the crops may slow down. Adverse environmental conditions including such factors as heat, cold, frost, drought or waterlogging, slow down the development and growth of the plant, therefore increasing the risk of losing a part of the yield.

Solution

Maxprolin – for stress reduction.

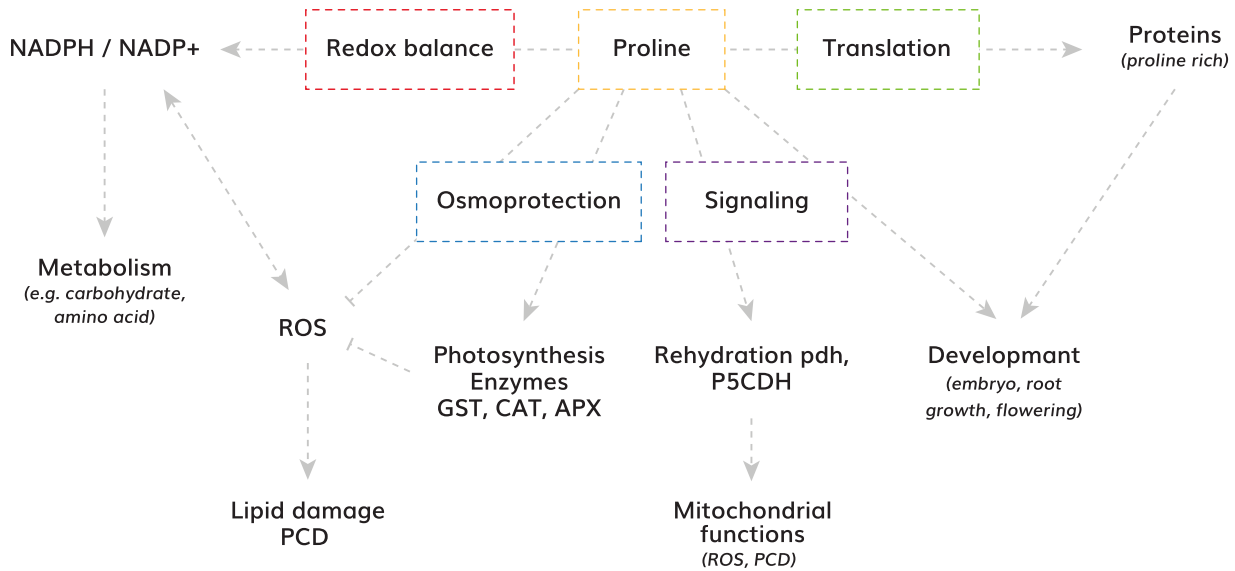
Registration information and certificates

Suitable for: cereals, oilseed rape, rapeseed, corn, sugar beet, vegetables, fruit trees and bushes, berries.

Mode of action

Proline is accumulated in cells of plants under unfavourable plant growth conditions. The experimental data let us draw the conclusion that accumulation of proline in plants has a protective function. Application of Maxprolin increases the concentration of proline in plants. It is scientifically proved that proline metabolism affects plant response to stress (cold, heat, drought): the plant growth is optimized and resistance to adverse environmental factors is increased.

Figure 2.



Benefits and Results

- Improve plant response to cold weather, frost, waterlogging or drought;
- Improves seed germination, root hairs formation, regulates water circulation in the plant;
- Promotes the formation of chlorophyll b in plants, increases the photosynthesis process;
- Increases sugar accumulation in cells and intercellular transport processes, therefore better response to winter conditions;
- Increases yield and crop quality.

Figure 3.

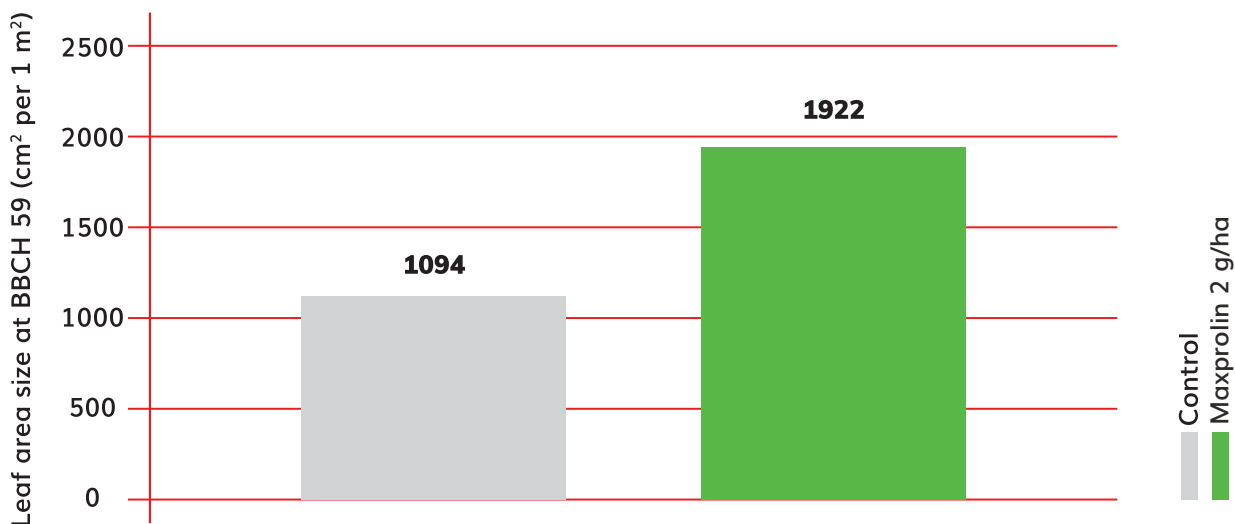
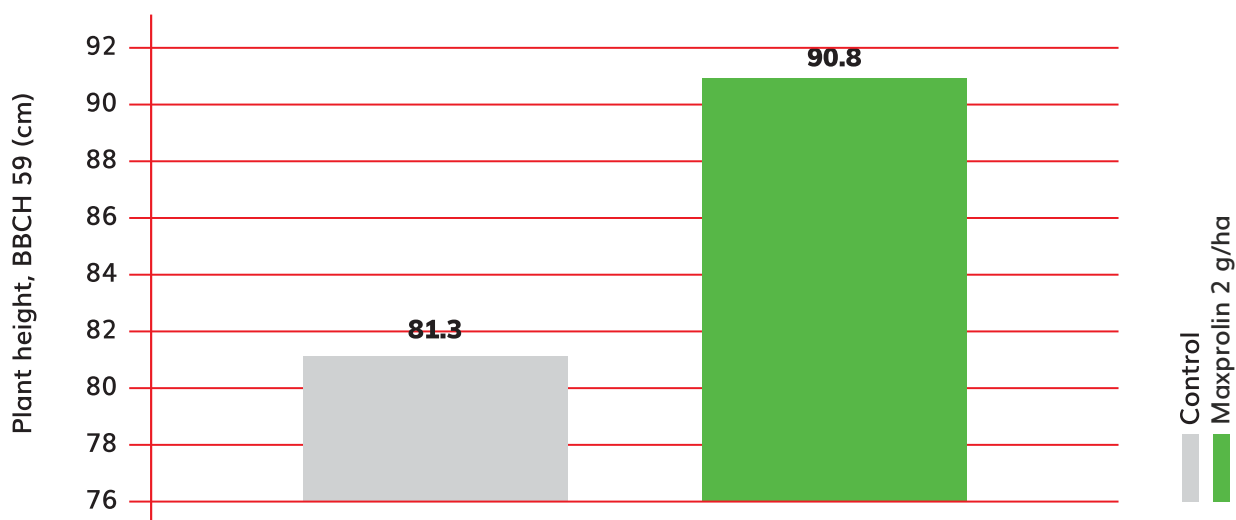


Figure 4.



LAMMC Vezaicai Experimental Center, Winter Wheat, 2019

Application rate, technology

- **Application rate foliar:** cereals: 2-3 g/ha – BBCH 20-59; rapeseed: 2-3 g/ha – BBCH 13-59; corn, sunflower: 5 g/ha – BBCH 10-39; sugarbeet: 10 g/ha – BBCH 10-39; vegetables: 10 g/ha – BBCH 10-59; fruit trees, fruit bushes: 10 g/ha – BBCH 01-59; berries: 5 g/ha – BBCH 10-59.
- **Application rate seed dressing:** cereals 2-5 g/t; corn 2-5 g/t; grasses 2-5 g/t.
- **Application time:** foliar application until flowering. In other cases it is recommended to consult with a sales representative.
- **Application requirements:** the sprayer pressure must be 1-10 bar or 15-145 psi; nozzle size is at least 50 µm.
- **Safety and storage:** Product can be mixed with all kinds of fertilizers and pesticides unless the manufacturer of fertilizer or pesticide states otherwise.

Specifications

Composition: L-proline, P <0.00216 mg/l; K <0.00216 mg/l; Ca <0.0216 mg/l; Mg <0.00216 mg/l; Na <0.00648 mg/l; S <0.01296 mg/l.

Packaging: 20 g carton box.

- **Biological activity:** reduction of biotic and abiotic stress;
- **Physical state:** powder;
- **Viability, shelf life:** 60 months. The manufacturer does not recommend storing the product above 30 °C.
- **Operating conditions:** wide spectrum.

Manufacturer: "Bioenergy LT", Staniunu str. 83/1, LT 36151 Panevezys, Lithuania.

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