

# PRODUCT DATA SHEET



## ES FERTILISER

## ENERGEN® GERMIN

### CONTENT

Iron soluble in water as	Fe	in %	1.0	Phosphorus soluble in water as	P in %	1.5
Zinc soluble in water as	Zn	in %	1.0	Potassium soluble in water as	K in %	1.2
Manganese soluble in water as	Mn	in %	0.6	The product also contains seaweed extract ( <i>Ascophyllum nodosum</i> ), a tested and functional combination of auxins and auxin precursors. It also contains a highly effective dose of biological active substances which affect the rate of release of feed agents from seeds and thereby stimulates and synchronises the entire germination and emerging process.		
Copper soluble in water as	Cu	in %	0.5			
Boron soluble in water as	B	in %	0.5			
Nitrogen soluble in water as	N	in %	2.6			

### BASIC EFFECTS

- Adds to germinating seeds a starting dose of nutrients required for their fast and healthy development.
- Supports the formation of fine root hairs. As a consequence it increases the utilisation of moisture and nutrition.
- Favourably affects the intake and processing of nitrogen. This supports the vitality of initial growth.

### SPECIAL EFFECTS

- Increases the energy of germination and significantly affects the rate and quality of germination.
- Supports stable emergence of plant growth and increases the action of photosynthesis of the germinating plants.
- Eliminates the inhibiting effects of stains on corn seed.

### MAIN PURPOSE

- The fertiliser is intended for use as part of corn seed staining fluid.



### ADDITIONAL AND SPECIAL PURPOSE

- **Regeneration after damage:** after chemical, mechanical and frost damage of plants.
- For foliar application on young germinating plants to the stage of a maximum of 3 leaves.

### APPLICATION METHODOLOGY IN CROPS

#### ADDITIONAL DOSAGE

CROPS	Approximate dose of water in litres per ton of corn seeds	ENERGEN® GERMIN in litres per ton of corn seeds		ENERGEN® GERMIN in litres per hectare with application beneath the base
		Light to moderately heavy soils	Heavier to heavy or water-logged soils	
winter wheat, winter barley, triticale	8 litres	0.5 litre GERMIN + 0.5 litre ENERGEN FULHUM	0.5 litre GERMIN + 1 litre ENERGEN FULHUM	0.5 litre per hectare
spring wheat	8 litres	0.5 litre GERMIN + 0.5 litre ENERGEN FULHUM	0.5 litre GERMIN + 1 litre ENERGEN FULHUM	0.7 l litre per hectare
spring barley	8 litres	0.5 litre GERMIN + 0.5 litre ENERGEN FULHUM	0.5 litre GERMIN + 1 litre ENERGEN FULHUM	0.7 l litre per hectare
oats	10litres	0.75 litre GERMIN + 0.5 litre ENERGEN FULHUM	0.75 litre GERMIN+ 1 litre ENERGEN FULHUM	0.5 litre per hectare
winter rape	10litres	5 litres GERMIN + 5 litres ENERGEN FULHUM	5 litres GERMIN+ 10 litres ENERGEN FULHUM	0.7 to 1 litre per hectare
opium poppy	20 litres	15 litres GERMIN+ 15 litres ENERGEN FULHUM	15 litres GERMIN+ 20 litres ENERGEN FULHUM	0.5 to 0.8 litre per hectare
maize	9 litres	0.75 litre GERMIN+ 0.5 litre ENERGEN FULHUM	0.75 litre GERMIN+ 1 litre ENERGEN FULHUM	0.7 to 1 litre per hectare
sun flower	9 litres	0.75 litre GERMIN+ 0.5 litre ENERGEN FULHUM	0.75 litre GERMIN+ 1 litre ENERGEN FULHUM	0.7 to 1 litre per hectare

In view of the tested optimum concentration of growth substances, we do not recommend application in combination with other stimulators during staining. Especially not with products containing auxin substances. By increasing the stimulating action you will not achieve a higher effect as this may result in its weakening when applying high doses.

YOU CAN FIND GENERAL PRINCIPLES OF ENERGEN DOSAGE AT [www.energen.info](http://www.energen.info) .

## GERMINATION STIMULATION.

**ES ENERGEN GERMIN** fertiliser in combination with **ENERGEN FULHUM®** is an efficient system that significantly helps establish vegetation at very low hectare costs. When we carried out an inspection before and after the field day at the testing station in Lukavec and the documentation of the plants, we discovered that there was a time shift in the wheat receiving stimulating treatment for corn seed staining. The plants receiving stimulating treatment continued to develop. The Malz variety of spring barley indicated how such treatment of winter wheat and other winter cereals works when there is a lack of moisture after sowing. It can be seen well on the barley plants how important it is for them to emerge evenly and their roots maintain contact with the escaping capillary water.



*The photograph on the left shows tests of GERMIN and FULHUM on varieties of corn seeds. Spring barley – the left photo shows stimulated plant growth and the right the inspected crop. The top ear on the last photograph belongs to a Germin stimulated variety, the bottom ear for inspection. We manage the targeted stimulation of plant growth by applying leaves from other products. This way we can respond to the state of plant growth and the weather.*

### REASONS FOR ADDING FERTILISERS AND STIMULATORS TO STAINS?

**IT IS SIMPLE, CHEAP AND EFFICIENT.** If we apply a combination of fertilisers and stimulators when staining corn seeds then we automatically affect the corn seeds even after the entire period of germination and emergence. This is very important because the rate, energy and evenness of emergence may help eliminate unsuitable conditions when establishing plant growth.

### EFFECTS COMPARABLE WITH COMPETING PRODUCTS:

- ✓ Adds to germinating seeds a starting dose of nutrients required for their fast development.
- ✓ Supports the formation of roots. This increases the utilisation of moisture and nutrition.
- ✓ Eliminates the inhibiting effects of corn seed staining.



The first photograph shows plants 40 days after sowing. The second photograph shows a wheat plant 70 days after sowing (sown on 10 September). However the most important information can be seen in spring. The main stalk already had an established ear on 28 March. This also gives rise to consequences for the formation of yield. If we speed up the development of the plant and this is stronger and enters the generative stage earlier in the spring and forms an ear, then such a plant will also have more time to form a yield. This is important in drought-affected regions where we have the opportunity to significantly move the formation of the yield to the season of the state of vegetation when there is more moisture available to the plant. This is then able to form stronger growth and we do not have to struggle in the spring with each offshoot because we had already grown them with great reserve in the autumn. Stimulation in the staining process even during late sowing dates will play an important role.

### UNIQUE EFFECTS:

- ✓ Application splits starches during germination into simple sugars and this leads to the rapid release of energy. This moment has a crucial effect on the overall energy and especially on the evenness of the emergence of plant growth.
- ✓ The combination contains anti-stress substances against drought – this significantly improves the management of germinating plants with water during drought.

### WHAT ARE THE CONSEQUENCES?

- ✓ Application increases the energy of germination and significantly affects the rate and quality of germination.
- ✓ Also supports even emergence of plant growth and increases the action of photosynthesis of germinating plants.

### IS THIS A NEW BEGINNING?

The combination of **ES HNOJIVA ENERGEN GERMIN** and **ENERGEN FULHUM®** as a fertilising and stimulating addition in the staining process is a step forward. **This is because it is a systemic step with an excellent effect and low costs.** Specific experience of individual farms provides us with highly positive feedback which is crucial to us. **Further appropriately selected application of ENERGEN products may further enhance this effect.**