The influence of the formulation of a manganese foliar fertiliser in barley

LWK Hannover, Nienburg-Börde, Niedersachsen, 2000
AGRAW Schwerin, Niedersachsen, 2005
RHG Nord AG, Schwerin, Niedersachsen, 2000

Background

The formulation of a foliar fertiliser has a major influence on its uptake. In container trials at TLL Jena, it was already possible to show that the uptake of Lebosol®-Mangan 500 SC and Lebosol®-Mangan-Nitrat 235 is very good, although the efficiency of manganese sulphate tends to be poor. In numerous field trials, it was investigated here using winter barley whether this knowledge can be transferred to the field.

Result

RHG Nord AG, 2000

With the same quantity of manganese, it was possible to achieve the same yield efficiency using Lebosol®-Mangan 500 SC and Lebosol®-Mangan-Nitrat 235.

Recommended application

Give your winter cereals 0.5 - 1 l/ha Lebosol®-Mangan 500 SC or 1 - 2 l Lebosol®-Mangan-Nitrat 235, especially before and after overwintering.
Result

LWK Hanover, 2000 (Fig. 1)
AGRAVIS Schwerin, 2005 (Fig. 2)

**Fig. 1**
- Control: 82.5
- 1 l/ha Lebosol®-Mangan500 SC: 88.7 (+7.4%)
- 2 x 1 l/ha Lebosol®-Mangan500 SC: 88.1 (+6.7%)
- 5 kg/ha manganese sulphate: 83.9 (+1.6%)
- 2 x 5 kg/ha manganese sulphate: 88.9 (+7.0%)

**Fig. 2**
- Control: 83.2
- 5 kg/ha manganese sulphate: 81.6 (-1.9%)
- 0.5 kg/ha Lebosol®-Mangan500 SC: 86.3 (+4.1%)
- 1.6 kg Mn: 88.5 (+7.0%)

Despite the significantly higher quantity of manganese sulphate needed, Lebosol®-Mangan 500 SC produced better effects. The minimum active ingredient quantity to achieve a yield effect was already achieved with 1 l/ha Lebosol®-Mangan 500 SC (Fig. 1) and 0.5 l/ha Lebosol®-Mangan 500 SC (Fig. 2). In the case of manganese sulphate, a minimum active ingredient quantity of 10 kg/ha had to be used (Fig. 1).

Experimental procedure

Crop: Winter barley of the variety Theresa (Fig. 1), of the variety Candesse (Fig. 2) and the variety Passion (Fig. 3).
Site: in Fig. 3 soil pH 5.9, 5-hs.
Experimental plan: 4 reps.; treatment at GS 13 (Fig. 1); at GS 27/29 and two treatments at GS 35/37 (Fig. 2); at GS 30/31 (Fig. 3).

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