

Year 2006: Field experiments performed with FZB24 by Prof. Gao, Nanjing Agricultural University

Together with our Chinese academic partner, Prof. Gao from Nanjing Agricultural University preliminary field trials with FZB24 have been performed and encouraging results have been obtained.

1. Application of FZB24 to *Chrysanthemum*



Left: untreated control; right: Plants are treated by FZB24. Chrysanthemum plants treated with FZB24 displayed a healthier state and grew stronger

2. Application of FZB24 in soybeans

Experimental area: Dongxing village, Lei Feng, Huachuan County of Heilongjiang Province (Northern China) – a farmland. The land occurred perennially soybean root rot and soybean cyst nematode. Test soybean variety is Suinong 14-3.

Results: *The effect of seed dressing on the sprout of soybean*

Bacillus FZB24 seed treatment can contribute significantly to promoting germination of soybean, a 34.7% increase compared with the control !

The effect on the root length

Seed dressed by FZB24 can promote soybean root length. In the stage of one clover, FZB24 treatment lead to 9.7% increase.

The effect on the number of nodules

FZB24 seed treatment did not inhibit the formation of nodules. In contrast FZB24 can promote formation of soybean nodules. An increase of 29.9% compared with the control was observed.

The effect on plant height

FZB24 dressed seeds accelerated the plant height, an increase of 12.5% compared to the control was determined.

The effect of the fresh weight and dry weight

FZB24 treated seeds raised fresh weight and dry weight of soybeans. An increase of 13.8% and 6.26% respectively was measured by comparison to the control.

Controlling root rot

Bacillus FZB24 Seed Treatment showed a strongest effect on the root rot during the one clover phrase. The best prevention time was June 1, on which efficacy reached 55%. In the middle period of the two investigations showed that there were no medium-term effect of disease prevention, the effect was 0.9% and 10% respectively. The late investigation showed again the protection effect by the *Bacillus* treatment. On July 28 protection from root rot of 35% was determined.

The effect on soybean yield

Bacillus Seed Treatment can significantly increase the yield of soybean; soybean yield increased by 22.03% compared with the control.