

Conclusion

The amount of imported mineral fertilizers affects the biological activity of the soil. The introduction of a standard dose of mineral fertilizers (N16P20K22) enhances the process of biological activity.

The use of "Trichodermine", "Stimix" and "BioLife" bio-products optimizes soil health by reducing the number of fungal colonies in the variants with bio-products.

The effect of bio-products is better expressed on a reduced mineral background.

The introduction of bio-products on a low mineral background creates favorable conditions for the development of microorganisms of all major groups. This ensures the stability of functional relationships between the main ecological and trophic groups of microorganisms.

The effectiveness of "Trichodermine" against black spots of *Alternaria* in pepper sowing is 56%. In variants with the use of "Nagro" for seed treatment, the incidence reduction is 45% against the background of N8P10K11 and 55% against the background of N16P20K22.

The use of an integrated system of fertilizer application (organic, mineral fertilizers and biological product "Trichodermine") increases the yield and yield percentage of standard pepper in the field. The increase in yield is 19-24% with the use of biofertilizers "Nagro" and "Stimix", 23% - "Trichodermine" and 29% - "BioLife".

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