

# In September, we disinfect the greenhouses

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Many plant disease agents and pests are transmitted through the soil. There they overwinter or pass through a certain stage of their development. Intensive and monoculture cultivation of vegetable crops in protected structures leads to an accumulation of pathogenic microorganisms and pests in the soil. It is considered that the losses caused by soil-borne pathogens account for 1/3 of the losses caused by all pathogens. Various methods are applied for the control of soil pests – physical (steaming, solarization), chemical (fumigation) and biological (biofumigation).

The purpose of soil disinfection is the destruction of:

- pathogens causing damping-off and root rot;

- nematodes;
- soil pests;
- weed seeds and others.

Before greenhouse disinfection is carried out, it is necessary that the greenhouse be prepared through the following activities:

- Collection and removal of plant residues;
- Cleaning and washing of the glass and the structure;
- Soil preparation and moistening;
- Destruction of weed vegetation around the greenhouse.

## **I. Physical methods:**

### **Soil steaming.**

### **Soil solarization.**

## **II. Chemical methods**

## **III. Biological methods:**

### **Biofumigation**

### **Disinfection of the structure**

At the end of the growing season of crops in greenhouses, a significant amount of infection from pathogens accumulates, and the density of insects also increases. When plant residues are removed outside, they are dispersed in the area and during the following growing season attack young plants. In such cases, burning of old plants with 60 l/da formalin is recommended. It can be applied through the irrigation system, which is raised above the plants.

### **Disinfection of equipment**

Wooden crates, hoes, shovels and other equipment can be disinfected by soaking in a 2% copper sulphate solution for 24 hours.

*For detailed information on each of the methods for soil disinfection in greenhouses, see issue 8/9 2018 of the journal "Plant Protection".*