



Fungicide Use

Foliar-Applied Fungicides

Foliar fungicides are used to manage fungal disease organisms that infect the aboveground portions of plants. Fungicides are used to protect the potential yield and quality of a crop. The majority of these fungicides protect foliage from infection; therefore, these fungicides should be on the foliage before fungal spores germinate.

Spray control programs to prevent disease have been developed from data through years of research. However, the decision to apply foliar fungicides to a specific field only should be made after considering current and future weather conditions, disease development, potential yield of the crop, and the dollars returned to management with use of the fungicides. Because each disease infestation is unique, the decision to use fungicides may vary depending on conditions in each individual situation.

Droplet size, nozzle type, operating pressure, volume of water, and formulation of fungicide all influence how fungicides should be applied. Fungicide coverage on the targeted crop may be improved with careful consideration and optimization of these variables. Applications can be made either through ground or air application equipment.

Some plant surfaces have a waxy or hairy coating causing some fungicides to collect in large droplets that run off the plant surface, thus reducing fungicide coverage. Using a wetting agent such as spreader-stickers (surfactants) will improve coverage. Information on wetting agents usually can be found on the label or in supplemental brochures. Spreader-stickers usually are incorporated in flowable formulations, so adding a spreader-sticker to fungicides in this form is not necessary and may be detrimental to fungicide performance.

Seed Treatments

Fungicidal seed treatment helps protect seed from soil-borne or seed-borne fungi that cause rotting, damping off, seedling blight, or a combination. When seeds germinate under favorable soil conditions, there is less danger of seed and seedling attack from soil-borne pathogens unless seed is of poor quality. Treatment of seed with a protectant fungicide may help with stand establishment when seeds are germinating under unfavorable conditions, such as cold wet weather, or when seed is of poor quality.

Seed may be treated commercially or on the farm. Commercial seed treatment is done using either a slurry treater or various automatic seed treaters. On-farm seed treatment is done using various home-type or slurry mixers. One method is to use a drill-box seed treatment, which is popular because it is quick and easy; no extra steps are required because seed is treated in the drill-box at planting. Another common on-farm method is to add powder or liquid fungicide seed treatment into the base of the auger used to fill the drill-box. This method ensures good mixing and seed coverage; however, if a powder is used, it may cause worker irritation, so adequate protective clothing and a chemical respirator are recommended.

Other Application Types

Other fungicide application types may be available for certain fungicides. Check the label carefully to see whether these options are available.

Fungigation: This term is used when fungicide is applied through a sprinkler irrigation system. Fungigation is sometimes referred to as chemigation on fungicide labels.

In-Furrow: A term used when fungicides are applied in rows of the targeted crop, often at planting time.



Aerial applicator.

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