Applying Preemergence Herbicides By: Kelly Feehan, Extension Educator Release: Week of April 24, 2023

Preemergence herbicides, PREs, are products applied just prior to seed germination to control weeds. If a labeled product is correctly applied at the right time, weeds will be reduced in landscape beds and lawns.

Labeled products are those where the label states the herbicide can be used on the site it will be applied to, and weeds to be controlled are also listed on the label. Landscape sites would include turfgrass, woody landscape beds such as shrubs, perennial flower beds, or ornamental grasses.

We know where our weeds are growing so be sure the site is listed on the label. It is against pesticide laws to apply a product to a site not on the label. Doing so may result in damage to nontarget plants like turfgrass and ornamentals or to the environment.

Positive identification of weeds is important to know whether the product will provide control. Many herbicides are selective in what they control. Others are nonselective and will kill good plants as well as weeds. Established perennial weeds, like dandelions, white clover, ground ivy, nimblewill, and windmill grass will not be controlled by PREs.

Weeds commonly controlled in spring with preemergence herbicides are annual weeds which are plants that grow from seed each year and then die at seasons end. They include crabgrass, prostrate spurge, knotweed, purslane, black medic, sandbur and puncturevine.

These are warm season plants, also known as summer annuals. Seed germination begins after soils warm to 55 degrees Fahrenheit with most germination occurring at soil temperatures of 60 to 70 degrees. In much of Nebraska, soil temperatures do not reach to these temperatures until mid-May.

Timing of application is important as these products kill seedlings as weed seed germinates; and most products are effective for six to eight weeks. If applied too early in spring, before seed germination, the product may no longer be active when the majority of weed seed germinates.

April 20 to May 4 is the general rule of thumb for application of PREs for summer annual weeds. If products are applied in the later part of this window in northeast Nebraska, a few plants might be missed but a larger majority of weeds will be controlled. The few that are missed are easily hand-pulled before they go to seed.

In lawns and landscape beds, it is important to water as soon as possible after application to wash the herbicide off of plant leaves into the soil and to activate the herbicide.

When using PREs in landscape beds, here are some additional precautions to take to avoid injuring ornamental plants. Again, be sure the site is listed on the label as one the herbicide can be applied to. Avoid applying the herbicide to ornamentals not listed on the label. With the large variety of ornamental plants, some could by harmed while others are not.

Do not apply granular herbicides to wet foliage or desirable plants unless it can be washed off immediately. Wet foliage might activate the product to harm plants. Avoid granules becoming trapped in whorls of foliage and again, wash any off that lands on leaves.

It is best not to apply preemergence herbicides to landscape beds during times of bud swell, budbreak or when ornamentals have tender, new growth.

Before applying preemergence herbicides to ornamentals, be sure the plants have been thoroughly watered and are not drought stressed.