Effective Weed Control

Thanks to the influx of rain our area has received, there are a lot of weeds everywhere. A weed is only a plant that is out of place. Bermudagrass may be a weed in a flower garden, but not in a pasture. Corn can be the desired plant in a field, but in a rock garden; it’s a weed.

An important factor when considering weed control is knowing the threshold level. These levels mark the highest point a weed (or insect) population can reach without risk of quantity or quality loss. The threshold of unacceptability is reached when the grower is projected to lose money or satisfaction with their crop, whether it’s several bushels of wheat, hay or petunias. At this injury level, the cost of control is equal to the loss of yield or quality that would result otherwise.

Thresholds for many pests and crops have been scientifically determined. The advantage of thresholds is that if a pest has not reached threshold, there is no risk of economic loss. Therefore, there is no need to spray. Once the pest density (number of pests per unit area) has reached threshold, action is justified. The costs of control will be less than the estimated losses that the pests would cause if left uncontrolled.

Urban pest thresholds are often related to aesthetics, rather than economic considerations. Where health concerns or individual sensitivities exist, the tolerable level of the pest may be zero. A zero threshold forces action, even if only one pest has been detected. Zero thresholds exist in hospitals, food production, warehousing, and retail facilities.

To control weeds effectively, select control methods carefully and use them properly. Chemicals, tillage, crop competition, cropping rotation, mowing, and fire are alternative weed control methods that may be used alone or in a combination. Available time, labor, equipment, and other costs as well as types of weeds and areas infested need to be considered when planning a weed control program. To increase efficiency of crop production, use weed control practices in conjunction with other crop and soil management practices such as planting high-quality seed, planting at the optimum rate and date, and maintaining optimum soil fertility.
Choice of an herbicide depends on the crop being grown, expected weed infestation, soil type, desired duration of control, crop use, crop sequence, and cost. Be sure the herbicide selected has been registered for use on the crop to be grown. Rotation of crops and herbicides is recommended to avoid enhanced herbicide degradation, herbicide residue buildup, herbicide-resistant weed problems, and to manage troublesome weeds.

The label designates the herbicide, lists the amount of active ingredient, and gives recommendations and precautions. By following recommendations and observing precautions, you minimize the danger of crop injury, reduce the hazards to people, animals, and susceptible plants, and increase the probability of satisfactory weed control. Do not use an herbicide unless directions for applying it to your crop are given on the label.

Some herbicides have been formulated in combination and are available as a “premix.” Some herbicides can be mixed together by the applicator and applied as a “tank mix.” More weed species can be controlled by using herbicides in combination than separately. Because the rate of each herbicide is usually reduced in the combination, crop injury and herbicide carryover can be reduced. NOTE: If a tank mix is used, follow all use limitations on labels of all products in the combination. Five Application Rates: Use only the rate recommended for your soil. Do not exceed the rate specified on the label. A rate higher than the recommended rate is illegal and can result in illegal residues in the harvested crop. Excessive rates also can injure the crop or carry over to injure the following crop. Apply only at the recommended stage of crop and/or growth. When a combination of herbicides is being used, the lower rates may not control tolerant species (e.g., sunflower, velvetleaf, morning glory, or cocklebur).

For more information or to have a plant identified, please contact wendiepowell@ksu.edu, Livestock Production Agent, (620) 784-5337.

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