

Effective control of winter weeds IS IMPORTANT

WINTER ANNUAL WEEDS ARE WEEDS THAT CAN GERMINATE DURING THE AUTUMN AND LIVE THROUGHOUT THE WINTER. THESE WEEDS CONTINUE TO MATURE, FLOWER AND SET SEED DURING THE SPRING AND THEN DIE DURING THE SUMMER.

Fleabane (*Conyza* spp) and ragwort (*Senecio consanquineus*) are common examples of winter annual broadleaf weeds. Winter weeds are well adapted to winter conditions and therefore could utilise large quantities of water during their lifespan. During the spring, the rainfall is limited. Winter weeds will then continue to dry the soil to such an extent that the germination of crop seeds is delayed.

In areas where the winter weed population is dense, a crop will emerge particularly slow or not at all. Winter annual weeds can also serve as hosts to various diseases such as *Sclerotinia sclerotiorum* (sclerotinia stalk rot of soybean), insects such as cutworm and nematodes that have a negative impact on the yield of the following summer crop.

WINTER WEED CONTROL

General aspects to remember with winter annual weed control are:

- Weed control, whether cultivation or chemical, must always be conducted timeously so that the weeds are not able to flower and shed seed.
- Problem weeds should be correctly identified before selecting a herbicide, because it is only able to control the weeds that are listed on its label.
- It is important to be aware of any possible residual effects (the time that the herbicide remains active in the soil) of a chosen herbicide to prevent damage to the follow-up crop, even when planted

months after the herbicide was applied. A common example is the residual effect of triazine-based herbicides such as atrazine, which are generally used for the control of broadleaf weeds in maize. These types of herbicides remain active in the soil for months and will damage broadleaved follow-up crops such as soybean.

- Before applying herbicides, the knapsack or tractor boom sprayer must be calibrated to ensure an accurate application rate.
- Herbicides must preferably be applied on younger weeds (less than 10 cm high or as per label instruction), because they lose some of their effectiveness on older plants. Older weeds will require larger dosage rates and even then, the level of control will not always be effective.

Control of fleabane and ragwort

Effective control of both fleabane (**Figure 1**) and ragwort (**Figure 2**) can be achieved by shallow cultivation and herbicide application on younger, smaller plants during late March or early April. However, since the summer crops are still present in the fields when these weeds start to germinate, the use of a herbicide may be problematic.

The application of such herbicides between rows (directed) using knapsack sprayers in smaller areas or drop arms in larger areas is possible during this period. Producers with ordinary tractor sprayers will only be able to apply these herbicides post-harvesting, when they can enter the fields.

Ragwort can be sprayed post-harvest with a systemic herbicide such as glyphosate or a contact herbicide such as paraquat. In the presence of fleabane, the most effective control is generally achieved with a tank mixture of glyphosate combined with a second herbicide with another mode of action such as 2,4-D or atrazine, depending on the follow-up summer crop (residual effects).

Farmers are welcome to contact Dr Craven on 018 299 6346 for more information.

1 Fleabane plants at seedling and rosette phase (A) and at flowering (B).



Safety *first*

THE MAIN PURPOSE OF PROTECTIVE CLOTHING IS TO PROTECT EMPLOYEES WHILE THEY ARE PERFORMING THEIR TASKS. AN EMPLOYER MUST COMPILE A PROTECTED CLOTHING POLICY AND DISCUSS IT WITH THE EMPLOYEES.

- All protective clothing must be bought for a specific purpose. Employers must provide protective clothing to employees in accordance with the risk they are exposed to.
- Employees are entitled to get protective clothing. The employer can either provide the clothing free of charge or give employees a clothing allowance to enable them to buy their own protective clothing.
- If an employer provides the protective clothing, it remains his property. Should an employee terminate his/her service at the company, the protected clothing must be returned to the employer.
- Protected clothing is only for use at the workplace and may not be

used for any other purposes. Employees must take care of their clothing. However, if protective clothing wears out and is no longer effective, the employer must replace it.

- Employees should check the filters of certain protected masks regularly. The effectiveness of these masks decreases when they exceed the expiration date.
- An employee who works with chemicals, must get additional protective clothing apart from the clothing he usually wears. Employers must also provide a facility where protective clothing (for chemicals) can be washed free of charge, as employees should not wash their protective clothing for working with chemicals at home.
- The employer must also provide facilities where employees can lock away their protected clothing and tools used in the workshop. ■

**CHARL SAAYMAN, HEALTH AND SAFETY CONSULTANT
AT MEGA HEALTH AND SAFETY**

Effective control of...

2 Young (A) and flowering ragwort plant (B).



Important: It remains imperative that farmers adhere strictly to the recommendations on product labels in terms of the specific weeds that can be controlled, the crop(s) on which the herbicide is registered, the dosage rates to be used and any residual effects the herbicide might have. Farmers should contact a reliable chemical advisor to help them choose the most effective herbicide for their specific needs and to indicate which dosage rate to apply. ■



**DR MARYKE CRAVEN,
SENIOR RESEARCHER,
ARC-GRAIN CROPS**