

# Glyphosate weed control in maize

## Recognize the problem

Many farmers fail to control weeds in maize by not using glyphosate properly. They only partially control weeds and sometimes even destroy their crop by spraying when maize seedlings are visible.

## Background

Any plant that grows where it is not wanted is called a weed. Glyphosate is a type of chemical called a herbicide, which kills plants after being absorbed by them. Glyphosate comes with many different trade names. It can be in liquid or granular form usually in 500gm sachets. Glyphosate gives a fast way of controlling weeds. One person can spray 1 hectare in 3 hours. Glyphosate is used to kill early weeds in fields before the crop is planted or after the crop is planted but before it has emerged. Spraying after the crop has emerged (i.e. when seedlings are visible) will kill the crop as well as the weeds.

## Management

- Glyphosate acts through the leaves. Thus, the sprayed glyphosate must come into contact with the weed. Spraying onto the ground does not help.
- It is non-selective, meaning that it kills any plant it comes in contact with, even crops. Therefore it must be sprayed before planting or after planting but before maize has emerged.
- It will not work if dirty water is used to spray it.
- When spraying glyphosate, the soil can be dry or wet but the weeds should not be wet. Avoid spraying early in the morning or late in the evening because weeds usually have moisture on them at these times. Furthermore, there should be no rain within 4 hours after spraying, otherwise the glyphosate will be washed off the weeds and will not work.
- To mix glyphosate, fill the sprayer half way with clean water, add the glyphosate and then shake the sprayer. After that, add water up to the 16-litre mark on the sprayer. Close the sprayer and shake to mix. For liquid glyphosate, mix 700 ml in a 16-litre sprayer or for granule glyphosate use 500gm or 1 sachet in a 16-litre sprayer. Double-check product labels for dosages.
- When spraying, hold the nozzle 50 cm high from the ground along planting lines. Use an orange fan-jet nozzle and walk at a speed of 1 second per meter. Spray when there is no wind, or spray with the wind

Wear protective clothing during any sprays. (Photo by CFU)



Glyphosate comes with many different names. It can come in liquid or granular form. When buying make sure it contains glyphosate. (Photo by CFU)



When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > *Zea mays*

The recommendations in this factsheet are relevant to: Zambia



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