



What is Roundup?

- It is a non-selective systemic herbicide
- Roundup contains 360g/ L glyphosate (from the isopropylamine salt) and a special surfactant.

Where is Roundup Used?

- Pre plant weed control in annual crops.
- Pre and post plant weed control in tree crops such as coffee, tea, nuts, forestry, bananas and others.
- Sugarcane – in crop weed control as a ripener prior to harvest or to kill off final ratoon cane stools.
- Forestry – pre and post plant weed control
- Noxious and aquatic weed control of species such as acacia, eucalyptus, lantana, eichbornia (water hyacinth), pistia (water lettuce) azolla (water fern), phragmites weeds, typha (bull rushes), possia (hippo grass).
- Industrial weed control around buildings, road and rail verges, aircraft runways, fence lines, ditches and drains.

How does Roundup Work?

- The herbicide, glyphosate, is absorbed by the green leaves or bark of plants and moves (or translocates) down through the plant to the roots.
- Once within the plant, the chemical inhibits the formation of certain amino acids, which are essential for the survival of the plant. (These amino acids are only present in plants, hence the unique safety of this product).
- Visible symptoms are wilting followed by a gradual yellowing which leads to the eventual death of the plant.
- There is no residual soil action with this herbicide.

What About Safety?

The LD₅₀ of Roundup is 5,000mg/kg – this is the lethal dose required to kill 50% of a population of rats by oral ingestion. As a comparison, the following are LD₅₀ values for some other products.

Sugar 15,000	Table salt 3,320	Vitamin A 2,000
Aspirin 1,240	Caffeine 200	Petrol 159
Nicotine 53	Arsenic 5	

- Roundup does not bioaccumulate in the soil or the food chain.
- Roundup is broken down in the soil by microorganisms into nitrates, phosphates, carbon dioxide and water.
- Roundup is not, metabolized by animals, humans, fish, birds, reptiles, vertebrates and invertebrates – it only affects plants.
- Use gloves, masks, and protective clothing to ensure maximum safety.



Why Use Roundup?

- Unique safety and favorable environmental characteristics
- Weeds are killed completely when the required dose is applied (although some species such as cynodon and cyperus may require follow up spray treatments to completely kill the plant).
- By spraying instead of cultivating to kill weeds, time and money can be saved for other jobs. At the same time soil structure and moisture are conserved preventing erosion and crop losses.
- It is effective.

Rates Required

The rates required vary from species and on the size of the plant.

Always consult the label for directions, but as a rough guide see below.

Weed Type	Rate / hectare	lts. Roundup per 15 liter knapsack
Annual Weeds	1.0 – 2.0	150 – 300
Perennial weeds	3.0– 5.0	450 – 750
Perennial broad leaved weeds	4.0 – 6.0	600 - 900

(based on a water volume of 100 liters per hectare)

Specific Weeds

Couch Grass	<i>Digitaria scalarum</i>	3.0lts/Ha
	<i>Cynodon dactylon</i>	6.0lts/Ha
Water Grass	<i>Cyperus sp.</i>	3.0 – 6.0 lts / Ha

Sequential applications may be required in cases of severe infestation of couch and sedges.

How Do I Make Roundup Perform Best?

- Use water volumes in the region of 70 – 150 liters per hectare.
- Do not spray droughted or stressed plants. Target plants should be actively growing.
- Do not spray plants covered in dust
- Ensure sprayer application equipment is clean and calibrated properly with nozzles in good working condition.
- Do not use alkaline or dirty water.

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