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GUIDELINES ON USE OF GLYPHOSATE FOR WEED CONTROL

It has been observed that indiscriminate use of glyphosate in tea lands results in chlorosis (yellowing) multiple bud formation and rosetting in shoots. Therefore, the users are requested to observe the following guidelines.

1. For the control of common weeds in tea, lower rate of application i.e. 0.30% solution (a.i. 36% - 41% w/v) which is equivalent to 25-50 ml of glyphosate in 10 litres of water or 1.00 - 1.75 fl. oz in 2.25 gal of water.
2. Rhizomatous weed species such as couch and illuk grass during uprooting tea and those in ravines, roadsides etc. could be controlled with 2% and 1% solutions of glyphosate, respectively.

1% = 100 ml of glyphosate in 10 l of water or
3.5 fl oz of glyphosate in 2.25 gal of water.

2% = 200 ml of glyphosate in 10 l of water or
7.0 fl oz of glyphosate in 2.25 gal of water.

3. Glyphosate usage could be further reduced by adding kaolin at the rate of 64 g in 10 litres or 2.25 oz. in 2.25 gal of the mixture. The efficacy of glyphosate is enhanced by incorporation of kaolin and thereby allowing reduction in the dosage by about 50%.
4. To ensure optimum efficacy of the chemical, clean water should be used as glyphosate is readily adsorbed by soil colloids.
5. Care should be taken to avoid spray drift falling on to the foliage and bark of the tea bush.

6. It is desirable to use a spray guard in mature tea in order to avoid spray drift and it is also advisable not to undertake spraying under windy conditions.
7. It is advisable to limit the number of application to two per year.
8. Resistant weed species such as *Commelina* spp (Amalai), *Hedyotis* spp (Getakola) and *Cyperus* spp (Kalanduru) cannot be controlled with glyphosate. These could be controlled by spraying 2,4 D or MCPA.
9. Use of glyphosate in young tea and in pruned tea (tea recovering from pruning) in the first year of the cycle is not recommended.
10. The effect of glyphosate on weeds can be seen only about a week after application.
11. For better efficacy, glyphosate should be applied on actively growing weeds (which are not under stress).
12. The spray of glyphosate should be just adequate to wet the foliage and not to cause run off.
13. There should be a minimum rainfast period of 4-6 hours after spraying for optimum efficacy.
14. While spraying, it is necessary to maintain fairly uniform pressure to avoid spray drift and use of plastic poli jet nozzles which direct the spray on to the weeds in the ground is advocated.
15. Glyphosate is corrosive, as such the use of galvanized spray tanks or mixing containers should be avoided.

Several registered, glyphosate based products are available in the market. These products include "Glyphosate", "Roundup", "Counter", "Surpass", "Destroy", "Weedol", "Boursate", "Glytox" and "Touchdown".

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