



# Tip of the Month

April 2018

## 23 IMPORTANT ADJUVANT STATEMENTS

The Tip of the Month is two years old! We have decided to include one important statement from each of the previous 23 editions to reinforce the important role that adjuvants play in pesticide efficacy.

1. pH cannot be used as an indicator of the amount of salts in water. If one wants to establish the salt content of water, an EC measurement or laboratory analysis are the most reliable methods.
2. The Villa recommendation is to use quality ammonium sulphate adjuvants as a standard practice with all glyphosate applications.
3. If the spray mixture pH is too low, herbicides like the phenoxys (MCPA and 2,4-D amine) could precipitate from the spray mixture. This could cause jelly-like, incompatible spray mixture.
4. One point on the pH scale represents a ten-fold difference in acidity of the spray solution. Incorrect buffering could be the cause of pesticides being exposed to alkaline hydrolysis, or to pH levels that are too low.
5. Claims on adjuvant labels should be backed up with data that prove that the product performs adequately. If the claims on adjuvant labels sound too good to be true, make sure that the data backs up the claim.
6. Foaming is more of an issue when soft spray water is used.
7. If used correctly, surfactants are rarely the direct cause of scorch on leaves or fruit as they normally hydrate the waxy surface, without damaging it.
8. Certain buffers, ammonium sulphate and other adjuvants that also contain an acid in the formulation, may reduce the water pH too much for certain applications.
9. Choose adjuvants that are registered, have been tested with various active ingredients under various climatic conditions and have the backing of the registration holder.
10. Extremely low pH is often one of the main culprits when it comes to precipitation, flocculation, separation of spray solutions, and blocked nozzles.
11. One of the best investments in effective pest control is to have a full water analysis done.
12. One can deliver the pesticide in large quantities to the target, but if the surfactant or oil with which it is applied does not ensure adequate absorption, the pesticide will not be effective!
13. Effective spray application technology and deposition agents can ensure more pesticide coverage on the target, and more effective control.
14. There is still no silver bullet adjuvant that can be used for all situations. One still needs a few types of adjuvants in the depot to apply all pesticides effectively.
15. It's a numbers game to ensure that enough pesticide is ultimately absorbed to ensure adequate control.
16. It is an extremely risky practice to use unregistered and untested surfactants as this could ultimately lead to crop damage.
17. In research, it was proved that there could be up to a 30 % difference in glyphosate weed control with different surfactants!
18. If using fertilizer grade ammonium sulphate, unregistered or non-endorsed products, there is no recourse if poor control or crop damage is obtained with glyphosate or any other herbicides.
19. Please adhere to the oil adjuvant recommendations on specific pesticide labels!
20. Each herbicide has specific requirements and only the correct adjuvant choice will satisfy those requirements and result in excellent weed control. Adjuvant choice makes a HUGE difference.
21. Villa has introduced an ammonium sulphate calculation method for glyphosate applications called [VillaCalc](#).
22. Incorrect adjuvant selection can limit the amount of active ingredient that is absorbed and can also reduce the absorption rate of pesticides. The longer the pesticide spends on the leaf surface and is not absorbed, the more chance of chemical burn.
23. A full water analysis is always the first prize. However, EC and pH measurements can give valuable information about water.

### Villa's stance

Adjuvants play a huge and very important role in pesticide efficacy. The correct adjuvant choice will enhance and stabilize pesticide efficacy and is an insurance policy to ensure adequate pest control.

Contact [Brian de Villiers](#) for more information on adjuvants and water quality  
082 880 0974 or [bdevilliers@villacrop.co.za](mailto:bdevilliers@villacrop.co.za)

**villa**