

Villa Adjuvant Tip of the Month



ADJUVANTS IN THE SAME GROUP CAN BE VERY DIFFERENT

Adjuvants have proved their worth with many crop protection products (CPP). They restore CPP efficacy significantly and ensure that pest control is more stable over various environments. However, one must always bear in mind that the adjuvant marketing claims are sometimes vague and that products in the same group can be quite different. Therefore, it is important to know that the adjuvant that you use has been thoroughly tested. It is also important that it has the correct and enough active ingredient to do the job properly. In the ensuing paragraphs, the water-conditioning adjuvants will be discussed to illustrate this point.

Salt adjuvants

Most of the salt adjuvants on the South African market contain ammonium sulphate and claim to neutralise antagonistic cations in spray water. Villa is a firm believer in the use of ammonium sulphate because we have tested it and seen the benefits with products like glyphosate, glufosinate, clethodim etc. However, one must understand that different liquid formulations may contain different ammonium sulphate concentrations. This could have a major influence on herbicide efficacy, especially in hard and brackish water. Furthermore, many ammonium sulphate products on the South African market also contain other ingredients like surfactants, humectants and acids. These other ingredients may either be acceptable or unacceptable for use with Villa's glyphosate products. We only recommend salt adjuvants that contain enough ammonium sulphate for the local conditions. We also only recommend adjuvants with additional ingredients if we know that they are suitable for use with our glyphosate products and other herbicides. Villa does not recommend any non-ammonium sulphate products for this purpose.

Buffers

Almost all the buffer labels on the local market claim to reduce water pH to a level that is acceptable for especially insecticides.

However, these adjuvants often have different buffering capacities. This could have a drastic influence on the final pH. If the spray solution pH is too high, alkaline hydrolysis of certain insecticides may occur. If the pH is too low, other problems like incompatible spray mixtures may occur. The type of acid in the buffer formulation can also be different. Although the acid type may sound irrelevant, it could play a major role in CPP efficacy. Furthermore, certain buffers contain surfactants and other components in the formulation, where others are just straight buffers. The additional components may be desirable for certain uses but not for others. Villa therefore only recommends selected buffers with enough buffering capacity for the local water sources.

Villa's stance

Although different adjuvant products may be in the same group, this doesn't mean that they are precisely the same. This also doesn't guarantee that they will be equally effective with different water sources and under different conditions. Their core ingredients and mode of action could also be different. Furthermore, don't just rate an adjuvant based solely on label claims. Rather use adjuvants that have been thoroughly tested and that are endorsed by the CPP registration holder. Adjuvant choice can have a major influence on CPP efficacy and they should be chosen very wisely. These warnings are also applicable to all of the other adjuvant groups.

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