



Laeveld Agrochem

Saam boer ons vooruit

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WATER SAL VERKEERDE BESLUIE ONTBLOOT

Deur Brian de Villiers

Onkruid-, siekte-, en insekbeheertegnologie het oor die afgelope tyd groot vordering gemaak. Dit, tesame met moderne toerusting, het 'n omwenteling in toedieningstegnologie en effektiwiteit teweeggebring. Ondanks hierdie tegnologiese vooruitgang word verkeerde besluite oor tenkmengsels nog dikwels geneem. By tye gebeur dit selfs dat sommige mense met hierdie verkeerde besluite wegkom, terwyl ander die prys vir dieselfde besluit betaal. Daar is verskeie redes vir hierdie teenstrydigheid, maar spuitwater speel 'n rol. Watergehalte en -volume kan 'n betekenisvolle invloed op verenigbaarheid, effektiwiteit, en gewasskade hê. Water sal verkeerde keuses ontbloom en kan die verskil tussen aanvaarbare en onaanvaarbare beheer beteken.

Watergehalte

Watergehalte word hoofsaaklik deur opgeloste katione, pH en bufferkapasiteit bepaal. Terwyl sekere produsente soms mag wegkom daarmee om die verkeerde waterkondisioneerder te gebruik wanneer die watergehalte goed is en weerstoestande ideaal is, sal ander die prys betaal met oneffektiewe onkruidbeheer wanneer die watergehalte swakker is. Sekere buffers mag minder effektief wees saam met water wat 'n hoë bufferkapasiteit het. Dit sal die alkaliese hidrolise van sekere insekdoders versnel en swak beheer veroorsaak. Ander produsente sal die korrekte pH met dieselfde buffer bereik wanneer die water 'n laer bufferkapasiteit het. Indien uiters suur produkte in laag-gebufferde water gebruik word, kan dit sekere tenkmengsels destabiliseer en onverenigbaarheid veroorsaak in die vorm van verstopte siwwe en spuitpunte. Dieselfde suur produkte sal 'n baie kleiner effek in hoog gebufferde water hê, en die produsent mag dalk met hierdie praktyk wegkom. Dit is daarom belangrik om te hou by etiketaanbevelings omdat watergehalte hierdie problematiese tenkmengsels kan ontbloom.

Watervolume

Dit is algemeen om laer watervolumes met moderne toerusting toe te dien. Terwyl dit effektief gedoen kan word, is dit krities dat etiketaanwysings gevolg word en dat daar voldoende bedekking is. Watervolume ontbloom egter gereeld riskante tenkmengsels. Sekere gewasbeskermingsprodukte (GBP'e) en tenkmengsels is minder oplosbaar teen 'n lae pH. Terwyl 'n produsent wat 'n hoër watervolume toedien, hiermee mag wegkom, mag 'n ander produsent wat 'n laer watervolume toedien, die prys met fisiese onverenigbaarheid betaal. GBP'e wat 'n benatter of oliegebaseerde byvoegmiddel in die formulasie bevat, en op 'n per area-grondslag toegedien word, sal 'n hoër byvoegmiddelkonsentrasie in 'n lae watervolume tot gevolg hê. Terwyl dit gewoonlik nie 'n kwessie is nie, kan dit probleme veroorsaak met 'n tenkmengsel wat reeds op die rantjie van gewasskade is. Met 'n hoër watervolume sal dit nie noodwendig 'n probleem wees nie.

Villa se mening

Terwyl baie faktore 'n rol speel as dit kom by verkeerde tenkmengsels, kan spuitwater 'n effek hê. Watergehalte en watervolume sal gereeld riskante tenkmengsels ontbloom. Die gevolge kan rampspoedig wees, met onverenigbare tenkmengsels, oneffektiwiteit, en gewasskade. Bly asseblief by etiketaanbevelings om hierdie kwessies te vermy. Kontak jou Villa landboukundige vir meer inligting oor byvoegmiddels en watergehalte.



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Together cultivating success

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WATER WILL EXPOSE INCORRECT CHOICES

By Brian de Villiers

The technology involved in controlling weeds, diseases and insects has made great progress in recent times. This, together with modern equipment, has revolutionised application technology and efficiency. Despite these strides in technology, incorrect decisions regarding tank mixtures still occur. Strangely, some people may even get away with these incorrect choices, while others pay the price for the same poor choice. There are many reasons for this discrepancy, but spray water plays a role. Water quality and volume can have a significant effect on compatibility, efficacy, and crop damage. Water will expose incorrect choices and could mean the difference between acceptable and unacceptable control.

Water quality

Water quality is mainly determined by dissolved cations, pH, and buffering capacity. While some growers may occasionally get away with not using the correct water conditioner with high-quality spray water and optimal weather conditions, others will pay the price with ineffective weed control in the case of poorer water quality. Certain buffers may be less effective in combination with water with a high buffering capacity. This will speed up the alkaline hydrolysis of some insecticides and result in poor control. Other growers will achieve the correct pH with the same buffer, because of a lower buffering capacity. If extremely acidic products are used in water with a low buffering capacity, it could destabilise certain tank mixtures and cause incompatibility in the form of blocked sieves and nozzles. The same acidic products will have a much smaller effect in water with a high buffering capacity, which will allow the grower to get away with this practice.

Therefore, it is crucial to stick to label recommendations, because water quality could expose deficiencies in these problematic tank mixtures.

Water volume

It is common for lower water volumes to be applied when using modern equipment. While this can be done effectively, it is crucial that label instructions are followed and that enough coverage is achieved. However, low water volume often exposes risky tank mixtures. Some crop protection products (CPPs) and tank mixtures are less soluble at a low pH. While a grower applying a higher water volume may get away with this, another grower applying a low water volume will pay the price with physical incompatibility. CPPs that contain a surfactant or oil adjuvant in the formulation, and are applied on a per area basis, result in a higher adjuvant concentration in low water volume. While this is not usually an issue, it could cause problems in a tank mixture that is already on the verge of crop damage. With a higher water volume, this problem is less likely to arise.

Villa's stance

While many factors play a role with incorrect tank mixtures, spray water can have an effect. Water quality and water volume will regularly expose risky tank mixtures. The results could be disastrous, with incompatible tank mixtures, inefficacy, and crop damage. Please stick to label recommendations to avoid these issues. Contact your Villa agronomist for more information about adjuvants and water quality.