



BEHOUD IS BELANGRIK OP ALLE PLANTGROOTTES EN OPPERVLAKTES

Deur Brian de Villiers

Ons beklemtoon dikwels die belangrikheid daarvan om genoeg spuitdruppels tot by alle dele van die plant te kry. Ons moet egter ook verseker dat meer druppels bly waar dit op die blaar gedeponeer word. Benatters en olie-byvoegmiddels verlaag die oppervlakspanning van die spuitoplossing. Dit verminder druppel-afspat en verhoog die behoud van spuitdruppels op blare. Dit is 'n nommerspel, en as meer spuitdruppels behou word, sal meer van die aktiewe bestanddeel beskikbaar wees om op of binne die plant te werk. Behoud word deur spuitfaktore soos druppelspektrum beïnvloed, maar gewas- en onkruidblare speel ook 'n massiewe rol. Plantgrootte en -oppervlak sal in meer detail bespreek word.

Plantgrootte

Dit is belangrik om op groot gewasse en onkruide soveel moontlik druppels op alle dele van die blaredak te behou. Spuitdruppels moet op die boonste, middelste en onderste dele van die plant behou word. In boomgewasse moet druppels ook dikwels binne-in die boom behou word. Die teendeel is ook vir baie klein plante waar. Onkruidodders word gewoonlik op jong, klein onkruide toegedien, om effektiewe beheer te verseker. Die probleem is dat klein onkruide 'n baie beperkte teiken vir die spuitdruppels bied. Dit is belangrik dat druppels wat wel die teiken bereik, nie weer afspat nie. Die uitdaging van klein onkruide word selfs belangriker wanneer die blare 'n vertikale oriëntasie het en die potensiaal vir behoud verlaag word. Dit is een van die redes waarom die etiket-aanbevole benatter of olie altyd gebruik moet word. Dit is belangrik om verminderde druppelafspat te hê om behoud

en bedekking op groot en klein plantteikens te verseker.

Plant oppervlak

Blaarwas en trichome (hare) is op die meeste blaaroppervlaktes teenwoordig. Verder verskil die oppervlak van jong en ouer blare. Hierdie faktore het alles 'n invloed op behoudvermoë. Dit is belangrik dat spuitdruppels nie a.g.v. waslae op die blaaroppervlak afloop nie. Spuitdruppels wat op blare behou word, mag weg van die blaaroppervlak op 'n dik laag trichome gesuspendeer wees. Dit is daarom belangrik om die druppel op die werklike blaaroppervlak te behou waar dit sy werk kan doen. Die verskil in behoud tussen jong en ouer blare is ook dikwels duidelik. Dit is waarom dit belangrik is om die korrekte benatter of olie byvoegmiddel te gebruik om behoud te verseker, ten spyte van hierdie plantoppervlak-faktore.

Villa se mening

Een van die hoof funksies van benatters en olies is om behoud op alle plantgroottes en -oppervlaktes te verhoog. Ongelukkig word die belangrikheid van hierdie byvoegmiddels dikwels onderskat, en dit word glad nie gebruik nie, of die etiket-aanbevole byvoegmiddel word met 'n ongeskikte produk vervang. Beskou asseblief hierdie byvoegmiddels as 'n integrale deel van spuitoplossings. Dit sal behoud, bedekking en beheer verseker. Kontak jou Villa landboukundige vir meer inligting oor byvoegmiddels en watergehalte.





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Dec 2024

RETENTION IS IMPORTANT ON ALL PLANT SIZES AND SURFACES

By Brian de Villiers

We often stress the importance of getting enough spray droplets to all portions of the plant. However, we also need to ensure that more droplets stay on the leaf where they are deposited. Surfactants and oil adjuvants decrease the surface tension of the spray solution. This decreases droplet bounce and increases the retention of spray droplets on leaves. It's a numbers game, and if more spray droplets are retained, more active ingredient will be available to work on or inside the plant. Retention is influenced by spray factors like droplet spectrum, but crop and weed leaves also play a massive role. Plant size and surface will be discussed in more detail.

Plant size

On large crops and weeds, it is important to retain as many droplets as possible on all portions of the plant canopy. Spray droplets must be retained on the upper, middle, and lower portions of the plant. In tree crops, droplets often also need to be retained on the inner part of the tree. The opposite is also true for very small plants. Herbicides are normally applied to young, small weeds, to ensure effective control. The problem is that small weeds offer a very limited target for the spray droplets. It is important that the droplets that do reach the target, do not bounce off again. The challenge of small weeds becomes even more important when the leaves have a vertical orientation and the potential for retention is reduced. This is one of the reasons why the label recommended surfactant or oil should always be used. It is important to have reduced droplet bounce to ensure retention and coverage on large and small plant targets.

Plant surface

Leaf wax and trichomes (hair) are present on most leaf surfaces. Furthermore, the surface of young leaves is different to older leaves. These factors all have an effect on retention ability. It is important that spray droplets do not run off because of the waxy layer on the leaf surface. Spray droplets that are retained by leaves, may be suspended away from the leaf surface by a thick layer of trichomes. Therefore, it is important to get the droplet retained on the actual leaf surface where it can do its job. The difference in retention between young and older leaves is also often evident. This is why it is important to use the correct surfactant or oil adjuvant to ensure retention, despite these plant surface factors.

Villa's stance

One of the main functions of surfactants and oils is to increase retention on all plant sizes and surfaces. Unfortunately, the importance of these adjuvants is often underestimated, and they are not used at all, or the label recommended adjuvant is substituted with an unsuitable product. Please treat these adjuvants as an integral part of spray mixtures. They will ensure retention, coverage, and control. Contact your Villa agronomist for more information about adjuvants and water quality.

