

# Surfactant & Adjuvant Selection Guide

Product Group	Spray Surfactant / Adjuvant Portfolio				
ISP Product Brand	Manta Ray Surfactant	Octane Extender, Sticker, Spreader	Overtake Oil	Scrubwet Penetrant Surfactant	Voltage MSO
<b>Key functions of product</b>	Approved for Aquatic Use. Acidifies spray solution, reducing alkaline hydrolysis with specific chemistry. Improves droplet size consistency – reducing drift.	Improves retention and deposition of spray droplets. Improves rain fastness. Improves droplet lifetime. Protects against losses from UV, Wind and Volatilization.	Crop Oil Concentrate (COC) based adjuvant and non-ionic surfactant blend to maximize spreading, wetting and penetration of grass, woody weed and non-selective herbicides.	Increases spray solution's ability to wet very hairy or waxy leaf surfaces. Reaches areas of plant other surfactants can't. Stomatal flooding with herbicide.	Vegetable Oil Concentrate (VOC) based adjuvant and non-ionic surfactant blend to increase penetration through waxy cuticles, reducing spray droplet evaporation rates and wetting and spreading properties.
<b>Compatible for use with products containing these active ingredients</b>	<p><b>Aquatic Herbicides</b> Glyphosate Flumioxazin Diquat Amitrole Carfentrazone</p> <p><b>Plant Protection products susceptible to Alkaline Hydrolysis</b> Weak Acid Herbicides Iprodione 2,4-D &amp; MCPA. Acetamiprid Amitrole Asulam Bentazone Bifenthrin Bromoxynil Carfentrazone Clofentezine Clopyralid Chlorpyrifos Dicamba Diclofop methyl Fluazifop-p butyl Glufosinate ammonium Indoxacarb Thiophanate methyl Trichlorfon</p>	<p><b>Sulfonyl Urea Herbicides – Improves uptake and distribution (Less Mature Weeds or Turf Safety is most important)</b> Trifloxysulfuron sodium Foramsulfuron Rimsulfuron Iodosulfuron methyl sodium Halosulfuron methyl</p> <p><b>Extension of Contact Fungicide Activity</b> Chlorothalonil Mancozeb Thiram Fluazinam</p> <p><b>Extension of Contact Insecticide Activity</b> Bifenthrin Permethrin Beta-Cyfluthrin</p> <p><b>Application of foliar applied Biological Products</b> Octane is safe on beneficials</p>	<p><b>Grass Specific Herbicides</b> Haloxypop Fluazifop-p butyl Clethodim Sethoxydim Atrazine Simazine Terbutylazine Flupropanate</p> <p><b>Woody Weed Control Herbicides where cuticle penetration is specifically required</b> Triclopyr Triclopyr, Picloram Picloram Clopyralid Fluroxypyr</p> <p><b>Non-Selective Herbicides</b> Glyphosate Glufosinate Ammonium Amitrole Paraquat</p>	<p><b>Use with Woody Weed &amp; Environmental Weed Herbicide Products</b> Picloram Triclopyr &amp; Picloram Triclopyr Glyphosate Clopyralid Metsulfuron Methyl Hexazinone Aminopyralid</p>	<p><b>Grass Herbicide (Mature Weeds)</b> Diclofop methyl Foramsulfuron Iodosulfuron methyl sodium Halosulfuron methyl Quinclorac</p> <p><b>Imidazolinone Herbicides</b> Imazapyr Imazamox Imazethapyr Imazapic</p> <p><b>Non-Selective Herbicides (Mature Weeds)</b> Glyphosate Butafenacil</p> <p><b>Apply to mature weeds with well developed cuticle structures</b></p>



# Spray Additive Selection Guide

## Spray Additive Portfolio

Foam Aid	Indigo Blue Spray Marking Dye	Indigo Red Spray Marking Dye	Odour Aid
Foam Suppressant – reduces excess foam in the spray tank. Reduces filling time and overflow waste.	Assists in clearer identification of sprayed areas. When used as a colouring agent with white foam markers, foam will become blue in colour to allow clearer identification.	Assists in clearer identification of sprayed areas.	Masks odour whilst applying Agchem products.
<b>Use with any products that create excessive foam in the spray tank</b> Granular Glyphosate 360g/L Glyphosate Granular Simazine Granular Atrazine Bifenthrin EC formulations Granular Diuron 2,4-D MCPA Soil Surfactants	<b>Compatible with most products</b>  Best used for turf and urban environments.	<b>Compatible with most products</b>  Best used for woody weed, industrial, non-selective weed control situations.	<b>Compatible with most products</b> EC Formulations of Bifenthrin EC Formulations of Oxyfluorfen EC Formulations of Abamectin. EC formulations of Trinexapac ethyl Bromoynxil, MCPA formulations Diclofop methyl formulations Carfentrazone ethyl based formulations Chlorpyrifos Carbaryl Dimethoate Nonanoic Acid Nonanoic Acid + Oxyfluorfen 2,4-D, MCPA & other Phenoxy based formulations Triclopyr based formulations

## Tank Mixing Procedure with Surfactant, Adjuvants and Spray Additives

<b>Step 1</b>	Water goes into the tank first. Fill the tank at least ½ full and start agitation.
<b>Step 2</b>	Add Foam AID (allow to fully disperse into the water solution).
<b>Step 3</b>	Add water conditioners (eg. Ammonium sulphate, acidifiers – Manta Ray).
<b>Step 4</b>	Water Soluble Packages (WSP's).
<b>Step 5</b>	Water Dispersible Granules (WG / WDG's).
<b>Step 6</b>	Wettable Powders (WP's).
<b>Step 7</b>	Suspension Concentrates (SC's).
<b>Step 8</b>	Oil in Water Emulsions (EW's).
<b>Step 9</b>	Oil Dispersions (OD's).
<b>Step 10</b>	Emulsifiable Concentrates (EC's).
<b>Step 11</b>	Soluble Concentrates.
<b>Step 12</b>	Grenadier 800WG Fungicide.
<b>Step 13</b>	Liquid Fertilisers
<b>Step 14</b>	Spray adjuvants (including Octane, Overtake Oil, Scrubwet, or Voltage MSO).
<b>Step 15</b>	Fill remainder of the spray tank and with water to the desired volume.

