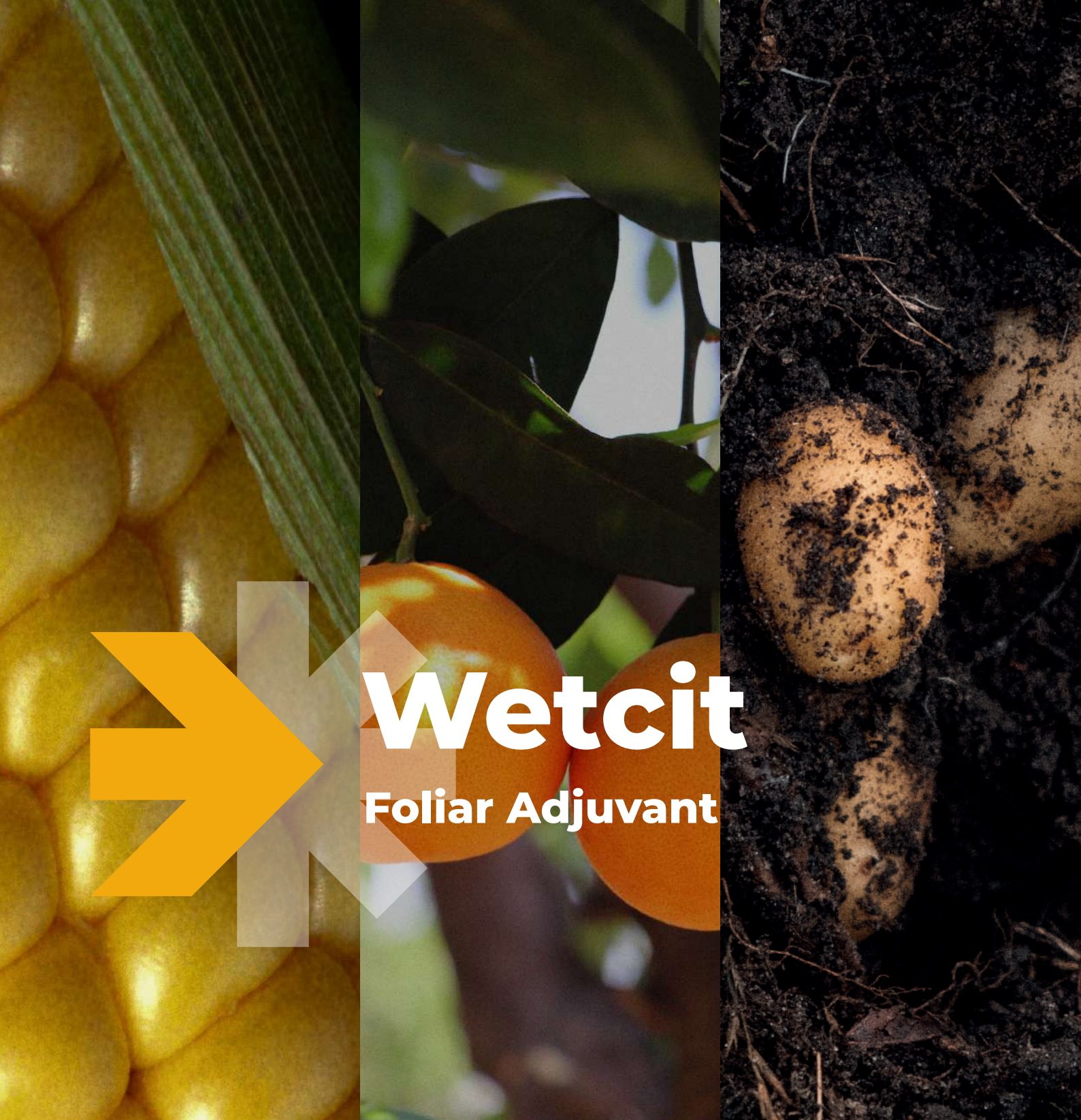




Wetcit

Foliar Adjuvant

Let's grow greener

 **Rovensa
Next**

Advanced Adjuvant Technology

WETCIT® is the best partner for your foliar pesticide and fertilizer sprays. It offers superior spreading and penetration properties compared to other adjuvants. TransPhloem® technology, ensures faster delivery of active ingredients to target sites within plants. WETCIT can improve the efficacy and performance of systemic pesticides and foliar nutrient sprays compared to other types of adjuvants. Using WETCIT simplifies choosing the right adjuvant for the job and eliminates the need to have several adjuvant products on hand.

Herbicide programs

- TransPhloem technology delivers MORE systemic herbicide throughout the growing points of the weed to the roots FASTER than other types of adjuvants
- Superior spreading, wetting, and penetrating properties compared to other adjuvants
- Enhanced rainfastness due to quick cuticle penetration
- Ideal for herbicide resistance management programs due to speed and completeness of kill

Insecticide/Fungicide/Miticide Programs*

- Penetrates waxy cuticles to move systemic and translaminar pesticides into the plant quickly
- Is an excellent spreader, at low rates, for contact pesticides
- Knocks down mite webbing and leaves no sticky residue to attract dust and cause mite flare-ups
- Unlike crop oils it does not decrease stomatal conductance, reduce transpiration, or increase plant stress
- If use of another type of adjuvant is required by the pesticide label WETCIT can also be added to improve spreading and penetration

Foliar Nutritional Programs

- Increases nutrient uptake into the plant
- Ensures complete coverage for better nutrient distribution and uptake by the plant
- Always read and follow pesticide manufacturers' labels for the proper use of adjuvants with their products.

What is transphloem technology and why is it so important?



TransPhloem® technology accelerates the movement of pesticide active ingredients and nutrients into a plant's phloem for translocation throughout the plant's vascular system.

A study conducted by the University of Illinois validates that TransPhloem technology improves the translocation of a systemic pesticide application. Using a C14 radioactive isotope of glyphosate, the study concluded WETCIT adjuvant was absorbed into the leaf quicker and moved a greater percentage of herbicide throughout the plant's vascular system to the roots.

How Wetcit, with transphloem technology, will improve your post-emergency weed control?

The challenge

Delivering a killing dose of a systemic herbicide to the roots of emerged weeds is not a easy task. Many weeds have hairy or waxy surfaces that provide a repellent barrier for post-emergent herbicide applications. Without WETCIT in your tank mix a significant portion of your herbicide spray could be lost.

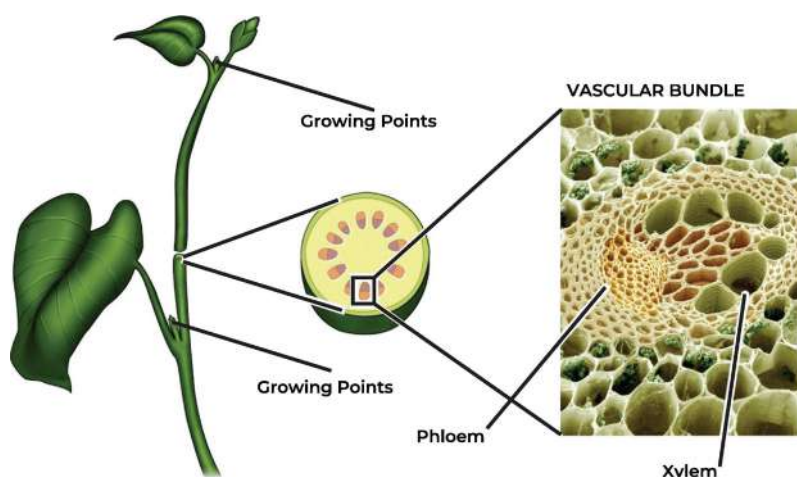


Fat Hen Leaf Waxy Surface

"The herbicide and adjuvant need to translocate to the roots via the phloem. Within the phloem are cells that regulate the movement of water, nutrients and materials, including herbicides. Moving a herbicide solution into the phloem and then having it translocate effectively to the roots is another challenge to achieving excellent weed control."

University Arizona - Dr. William McCloskey

Phloem Within a Plant's Vascular System

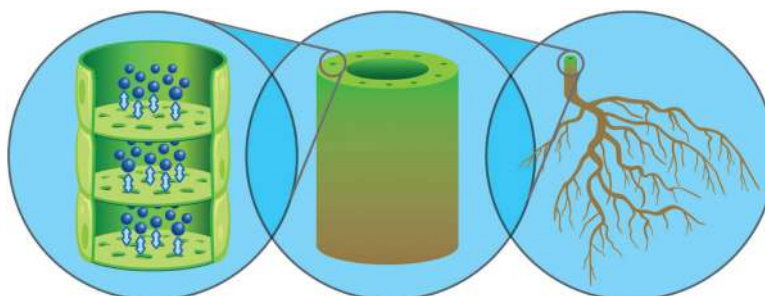


Movement of Materials within the Phloem

Phloem allows materials to flow both up and down the plant's vascular system

A lateral cut of a stem illustrates the phloem and xylem vascular bundles

The phloem carries materials throughout the plant including down to the root system

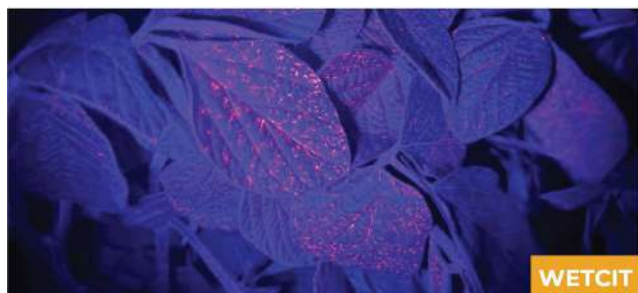


The solution

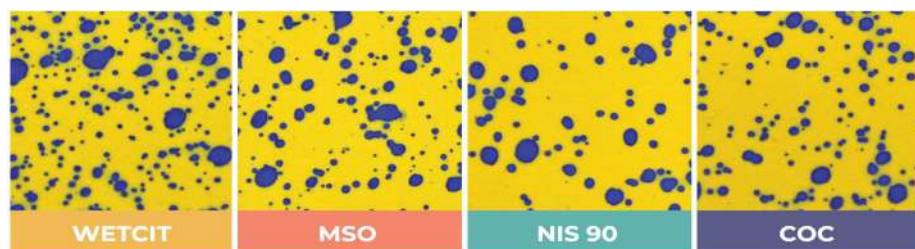
It is critical in post emergent herbicide sprays to get excellent coverage.

- The superior surface tension reduction properties of WETCIT provides much improved wetting and coverage of the leaf
- Compared to other adjuvants, WETCIT delivers more droplets of uniform size resulting in more complete coverage and effectiveness

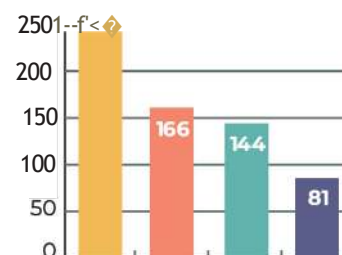
1. Superior Spreading



Droplet Study - per 2 cm²



Droplets per 2 cm²



2. Superior Penetration

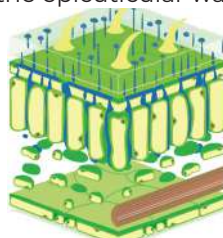
Leaf surfaces have developed formidable barriers to the delivery of systemic herbicides and translaminar pesticides into the plant. WETCIT, with OROWET® technology, overcomes these barriers with a novel formulation that allows movement through the epicuticular wax on the leaf surface and between cells inside the leaf.

- OROWET TECHNOLOGY makes for more uniform translocation with reduced phytotoxicity.

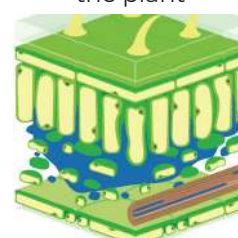
Product deposition



Movement through the epicuticular wax



Translocation within the plant

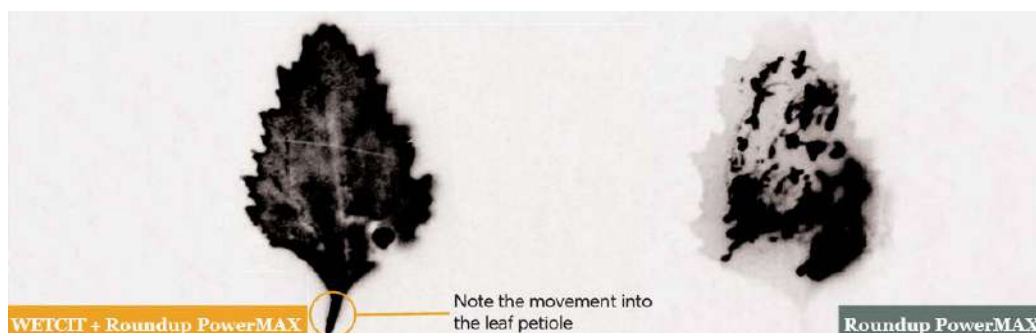


3. Superior Absorption

WETCIT, with TransPhloem technology, was shown to move the Roundup PowerMAX solution into the leaf more than twice as fast as a MSO or Roundup PowerMAX solution alone. In as little as 3 minutes the WETCIT solution is thoroughly absorbed into the leaf, delivering more herbicide for quick translocation and providing excellent rainfastness.

The result of the excellent leaf absorption and penetration of WETCIT is shown in this photo from a recent study. A radioactive isotope solution of glyphosate was applied to a common Fat Hen leaf. After only 15 minutes the WETCIT application had penetrated and distributed the glyphosate completely throughout the leaf, whereas glyphosate alone was spotty. Also very significant is the movement of the WETCIT solution into the petiole illustrating better translocation of the herbicide application.

Radioactive Isotope Herbicide Absorption Common Fat Hen: 15 Minutes after Application

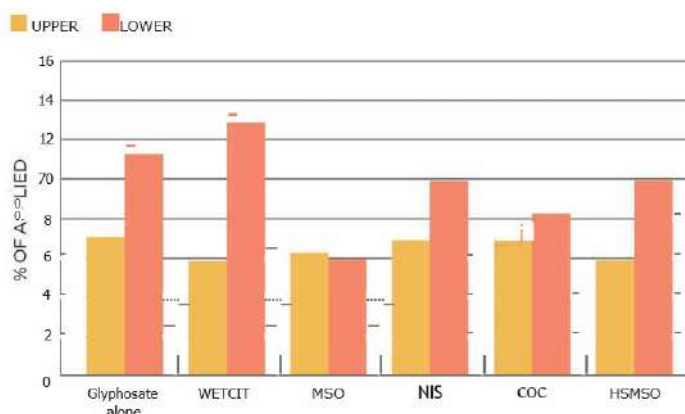


4. Superior Translocation

TransPhloem technology improves the translocation of the herbicide and adjuvant solution when it moves into the main stem and vascular system of the weed. Research shows that when WETCIT is added to glyphosate a higher percentage of applied herbicide is translocated compared to glyphosate alone or when mixed with other adjuvants.

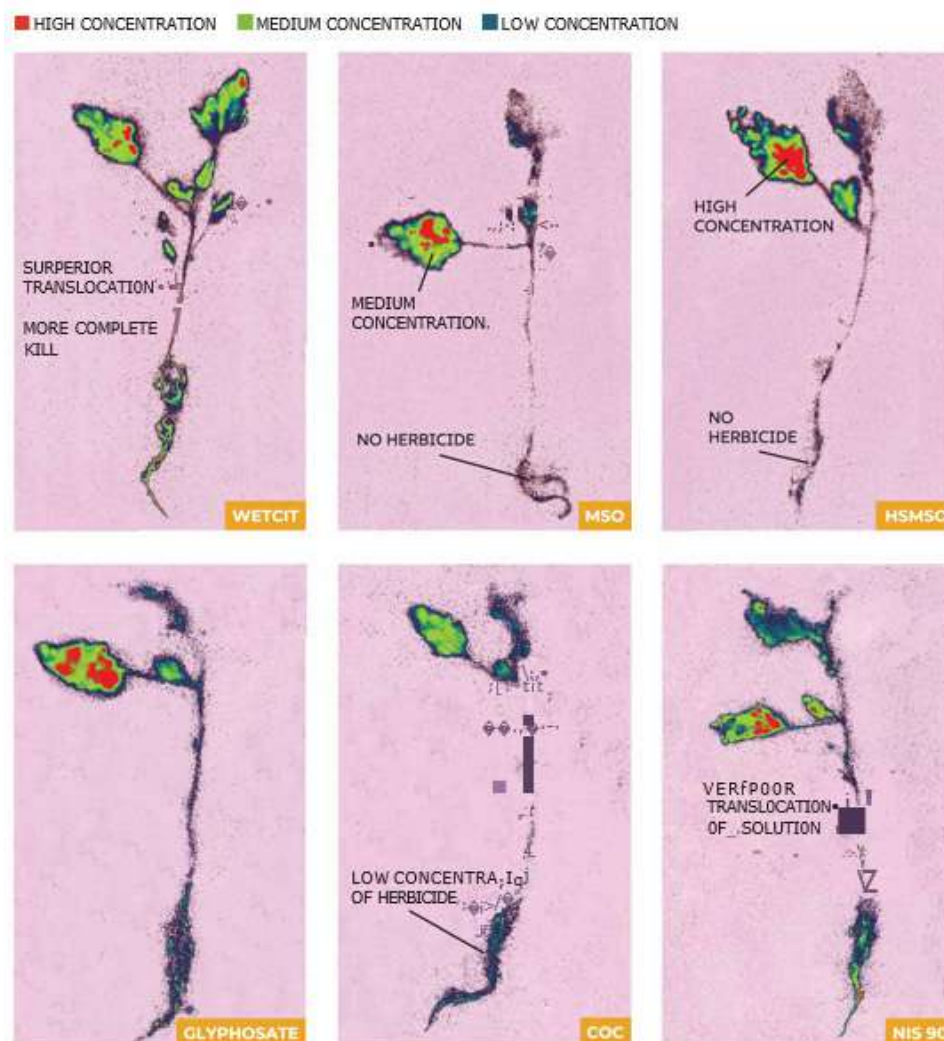
Results in a faster more complete kill greatly reducing need for re-sprays.

Translocation of Glyphosate into Common Fat Hen Plant Sections at 24 Hours

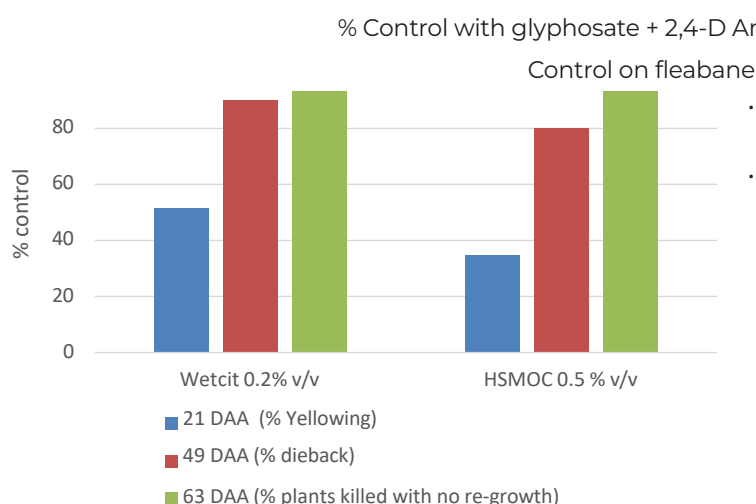


The superior translocation provided by TransPhloem technology is shown by these phosphorescent images of the C14 radioactive isotope glyphosate concentration in Fat Hen plants. A single leaf was treated with the glyphosate/adjuvant solution. At 12 hours, the plants were uprooted and the phosphorescent images were taken. Only those parts of the plant that have some concentration of C14 glyphosate show up in the image. The WETCIT treated plant has more area visible signifying the C14 solution has moved into more parts of the plant than other adjuvants. Also, the WETCIT solution has the most green areas and very little red areas on the treated leaf, indicating the glyphosate has moved out of the leaf into other areas of the plant. The WETCIT plant also has the largest amount of red area in the roots, showing a high concentration of glyphosate has been translocated to the roots in 12 hours.

Common Fat Hen: 12 HR after Application Radioactive Isotope Phosphorescent Images



Use WETCIT to Control Hard to Kill Weeds - Fleabane



- Addition of Wetcit at 0.2% v/v is equivalent to HSMOC for the control of fleabane.
- Herbicide mixture with Wetcit achieve quicker control at 49DAA when compared to HSMOC.



All treatments with full rate herbicide mixture: Weedmaster DST (47% glyphosate) @ 291 g a.i./ac 2,4-D amine (70%) @ 189 g a.i./ac

Garlon: (60% Trichlopyr) @ 20 g a.i./ac No stats done as only 3 replicates

Application date: May 29, 2020

Water vol: 10 gal/ac (100 L/ha)

Fleabane (*Conyza bonariensis*)
Potted weeds (5 plants/pot)

The results

WETCIT, with TransPhloem technology, moves systemic herbicides into the plants roots quicker and at higher concentrations than other types of adjuvants. You will see a faster more complete kill of target weeds when using WETCIT. As shown in this pot study the addition of WETCIT added solution resulted in the most commercially acceptable control.

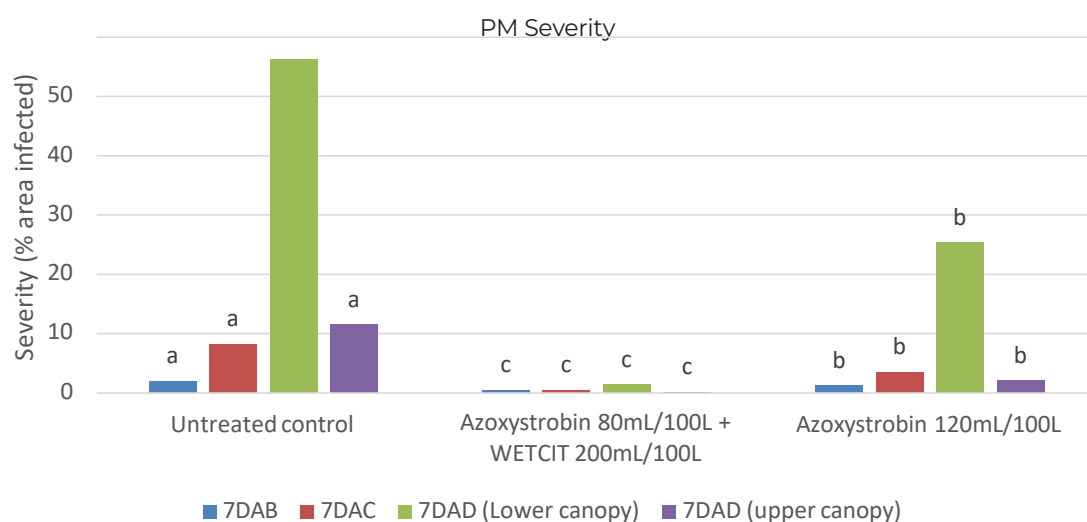
- Fat Hen without WETCIT will continue to compete with crop
- These weeds will most likely need to be resprayed

Burndown Herbicide Trial Fat Hen: WETCIT, COC, MSO, HSMSO & NIS 90



Applications of WETCIT with Fungicide and Insecticide

Control of Powdery Mildew in Cucumber (Protected cropping)



Trial Location: MacLean, SE QLD
4 applications at 7-14 days interval
(PREV-AM, Amistar)

Crop: Cucumber Pest: Powdery mildew
(Podosphaera xanthii) Pest stage: All
stages

Crop stage: Vegetative to fruiting

Application A: 10/11/2021, at 500 L/ha,
27°C

Application B: 24/11/2021, at 900 L/
ha, 23°C

Application C: 01/12/2021, at 1200 L/ha,
22°C

Application D: 08/12/2021, at 1200 L/ha,
28°C

Droplets size: fine



5% leaf area
infected

40% leaf area
infected

90% leaf area
infected

Wetcit improved the efficacy of Amistar for
the control of powdery mildew compared to
HSMOC.



Untreated control

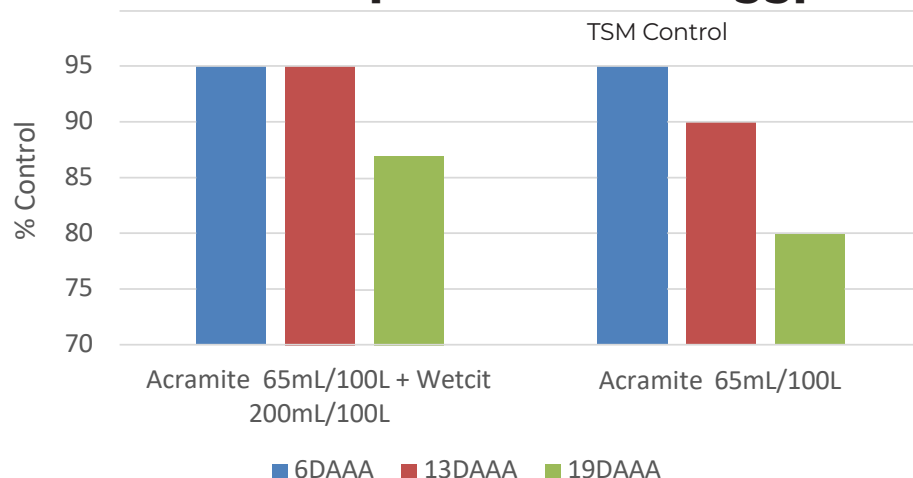


Amistar @ 80 mL/100L +
Wetcit @ 200mL/100L



Amistar @
120 mL/100L

Control of Two-spotted mite in eggplants



Very high mite pressure, Grower applied Acramite alone 5 days before the trial.

(Acramite can only be applied once per season)

Acramite + Wetcit further reduced TSM compared to Acramite alone

Trial Location: Pallara SE QLD

3 applications at 6-7 days interval (PREV-AM)

1 application of Acramite

Crop: Eggplants

Pest: Two-spotted mite (*Tetranychus urticae*) Pest stage: All stages Crop stage: Fruiting

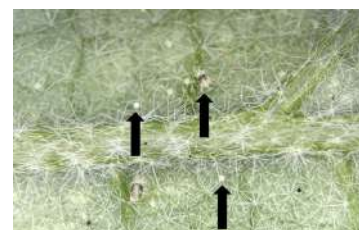
Grower applied Acramite on 04/12/21

Application A: 09/12/2021, at 2000 L/ha, 37oC

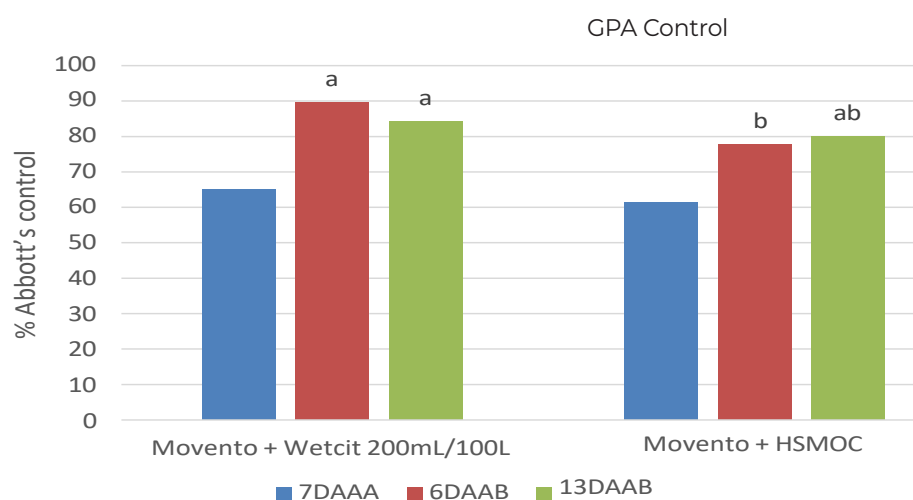
Application B: 15/12/2021, at 2000 L/ha, 29oC

Application C: 22/12/2021, at 2000 L/ha, 30oC

Droplets size: fine



Control of Two-spotted mite in eggplants



Movento + Wetcit 200mL/100L was always superior to Movento + HSMOC, providing more than 80% control after 2nd application.

Trial Location: Ballandean, Queensland

2 applications at 7 days interval

Crop: Capsicum Plato

Pest: Green peach aphid (*Myzus persicae*) Pest pressure: moderate

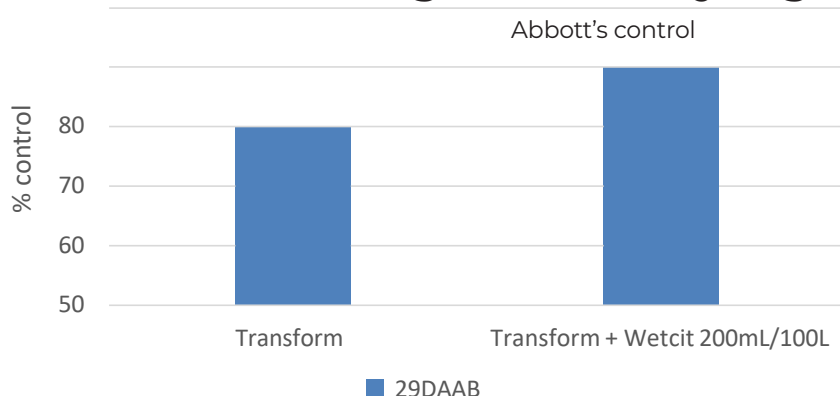
Crop stage: BBCH 73 3rd fruit has reached typical size and form

Application A: 24/03/22, 21oC, 80% RH

Application B: 31/03/22, 23oC, 80% RH

Spray volume: 800 L/ha

WETCIT effect to longtailed mealybug in oranges



Wetcit + Transform provided 90% control, whereas Transform alone provided 80% control of mealybug.

Trial Location: Colignan, Vic
2 applications at 18 days interval (WETCIT, Transform)
5 replications

Crop: Oranges cv. Rhode
Longtailed mealybug (Pseudococcus longispinus)
Pest stage: Early crawler stage Crop stage: Fruiting

Application A: 04/03/2021, at 3500 L/ha, 24°C
Application B: 22/04/2021, at 3500 L/ha, 24°C

Application and usage directions

A real benefit to growers is the versatility WETCIT adjuvant brings to spray programs. WETCIT has the capability to act as a wetter, spreader, penetrant and a translocation aid depending on the use rate. Regardless of whether you are spraying a contact or systemic pesticide or foliar nutrient WETCIT can

deliver it to the desired action site - giving the active ingredients the best chance for peak performance. This makes selecting the right adjuvant simple and means you don't have to buy several adjuvants for your different spray programs.

Always Read and Follow Label Directions

Label Use Rates

Herbicides, Defoliant, Desiccants: 100 - 250ml (0.1% - 0.25%) per 100 litres of water

To Control Hard to Kill Weeds: 400 - 800ml (0.4 - 0.8%) per 100 litres of water Insecticides, Fungicides, miticides: 100 - 200ml (0.1% - 0.20%) per 100 litres of water

Follow the mixing and application instructions for the pesticide(s) or foliar nutrient(s) being tank mixed with WETCIT.

Mixing and Application Instructions:

With constant agitation, add WETCIT to the spray tank after all other materials are thoroughly dissolved or mixed. WETCIT will not affect the pH of the spray solution.

Be aware WETCIT will dissolve any residues in the tank, lines and nozzles from previous spray materials. If these residues could cause harm to the crop being sprayed thoroughly clean your spray system prior to mixing WETCIT in the spray tank. Use a commercial tank cleaner or mix 600 ml of WETCIT in 75 litres of water and thoroughly circulate through your sprayer. Dispose of the spray solution properly.

For more information contact your local Rovensa Next representative or visit our website

rovensanext-au-nz.com



Wetcit



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Phone: 1300 595 000
Info.au@rovensanext.com
rovensanext-au-nz.com

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