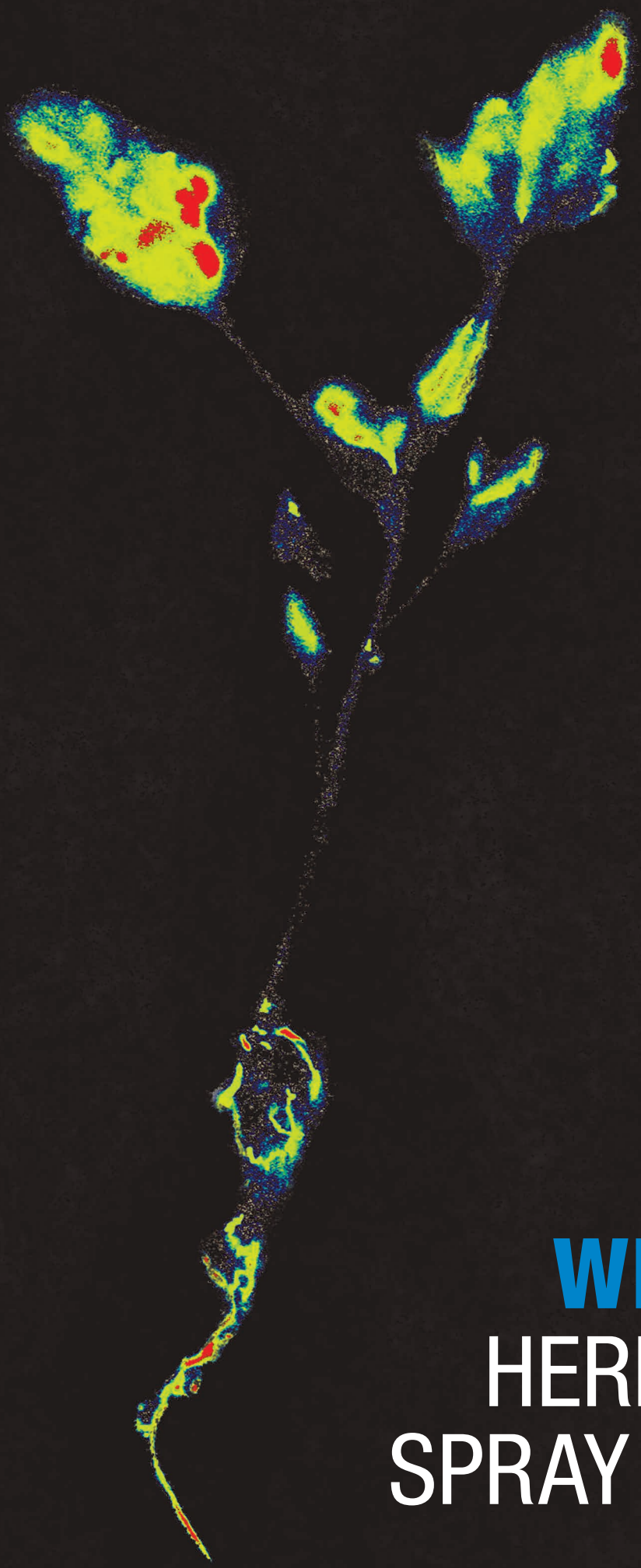


WETCIT®
HERBICIDE SPRAY GUIDE

ADVANCED ADJUVANT TECHNOLOGY

WETCIT

WETCIT® is an excellent tank mix partner for your pesticide and fertilizer sprays. It has superior spreading and penetration properties compared to other adjuvants such as crop oils (COC), methylated seed oils (MSO), high surfactant methylated seed oils (HSMSO), and non-ionic surfactants (NIS). And now with **TransPhloem**™ technology, it ensures faster delivery of active ingredients to target sites within plants. This means **WETCIT** can improve the efficacy and performance of systemic pesticides and foliar nutrients sprays compared to these 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. It should be your adjuvant of choice in every spray tank.

HERBICIDE PROGRAMS

- **TransPhloem** technology delivers MORE post-emergent, systemic herbicide to the weeds' 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

INSECTICIDE/FUNGICIDE/MITICIDE PROGRAMS

- Penetrates waxy cuticles to move systemic 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 oil applications, it does not decrease stomatal conductance, reduce transpiration and photosynthesis, or increase plant stress
- If use of a MSO or COC adjuvant is required by the pesticide label, **WETCIT** can be added to improve spreading and penetration

FOLIAR NUTRITIONAL PROGRAMS

- Increases nutrient uptake into the plant
- Ensures complete coverage for better nutrient distribution

WHAT IS TRANSPHLOEM TECHNOLOGY AND WHY IS IT SO IMPORTANT?

Trans Phloem TECHNOLOGY

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

An Oro Agri commissioned study conducted by the University of Illinois validates that **TransPhloem** technology improves the translocation of a glyphosate application (Roundup PowerMAX®). Using a C^{14} radio isotope of glyphosate, the study concluded that an improved **WETCIT** adjuvant was absorbed into the leaf quicker, and moved a greater percentage of applied herbicide to the roots (the active site for glyphosate's mode of action) faster than the other major types of adjuvants.

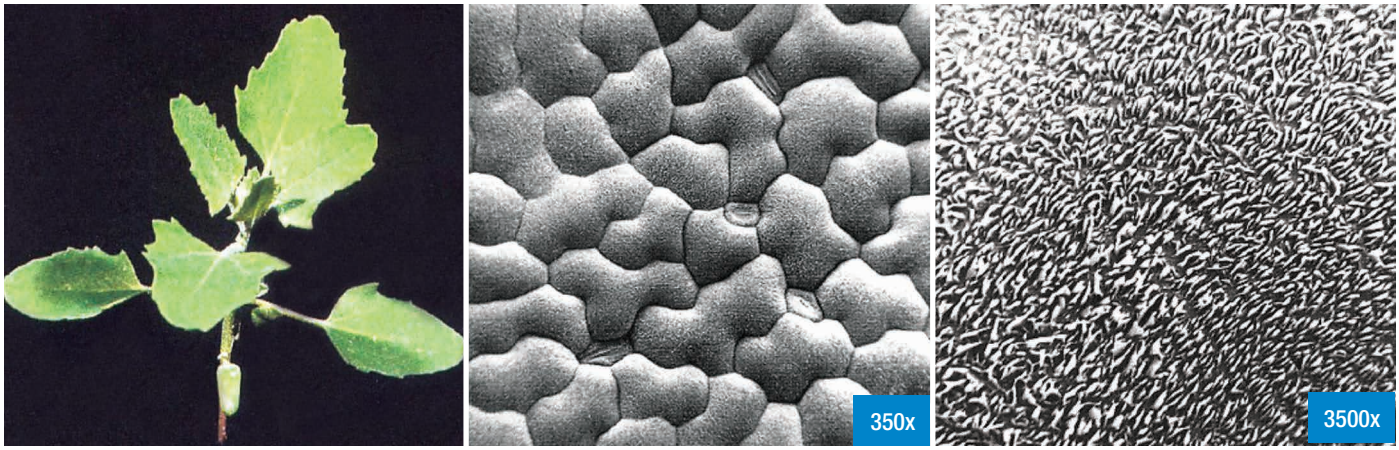
TransPhloem technology, combined with the superior spreading and penetrating properties of WETCIT, can boost your systemic herbicide's performance and give you a better return on your herbicide program investment.

HOW WETCIT, NOW WITH TRANSPHLOEM TECHNOLOGY, CAN IMPROVE YOUR POST-EMERGENT 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, like this fat hen leaf, that provide a repellent barrier for post-emergent herbicide applications. Without the right adjuvant in your tank mix a significant portion of your herbicide spray could be lost to run-off or to rain.

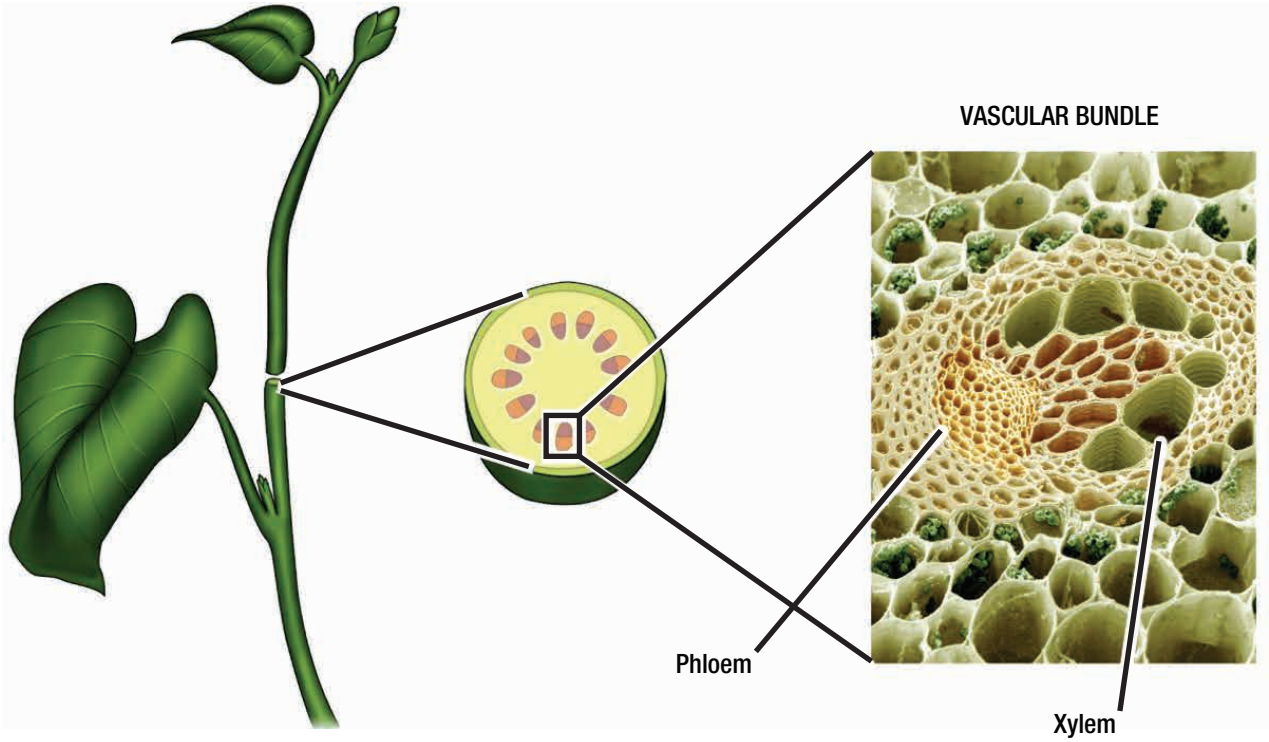
FAT HEN LEAF WAXY SURFACE



Univ. Arizona – Dr. William McCloskey

Additionally, the herbicide and adjuvant need to translocate to the roots via the phloem, part of the plant's vascular system. Within the phloem are cells that regulate and can restrict 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, through the phloem, is another challenge to achieving excellent weed control.

PHLOEM WITHIN A PLANT'S VASCULAR SYSTEM



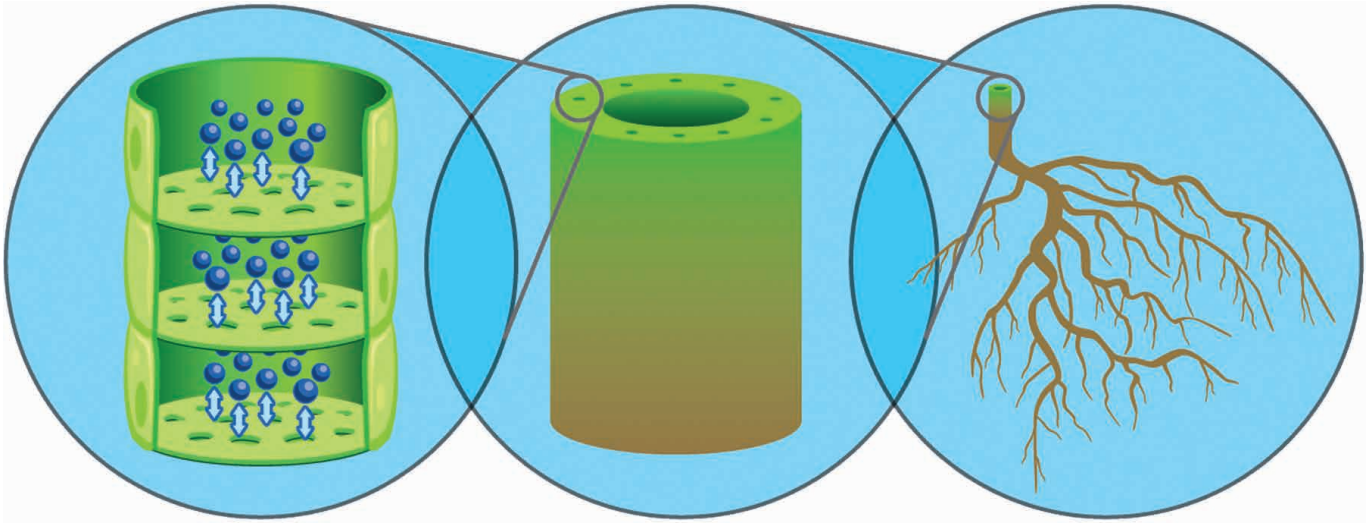
W.W. Norton & Company, Inc.

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

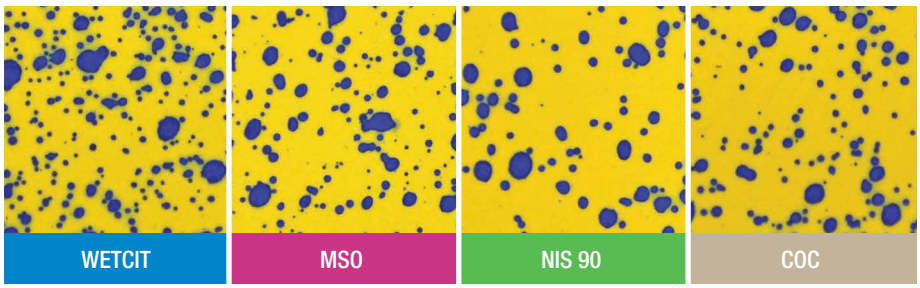


THE SOLUTION

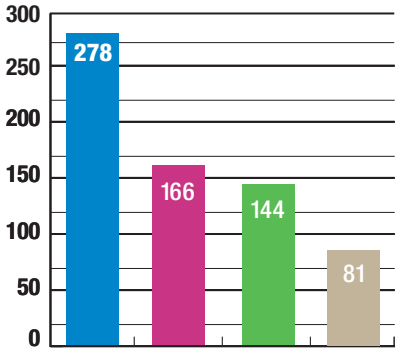
The critical first step in post-emergent weed control is getting good coverage of the leaf surface with your herbicide spray. **WETCIT**, because of its superior surface tension reduction property, provides excellent wetting and coverage of the leaf. It also delivers a greater number of droplets and a more uniform droplet size compared to other adjuvant types that contributes to its excellent spray coverage.

1. SUPERIOR SPREADING

DROPLET STUDY - PER 1/2 INCH²

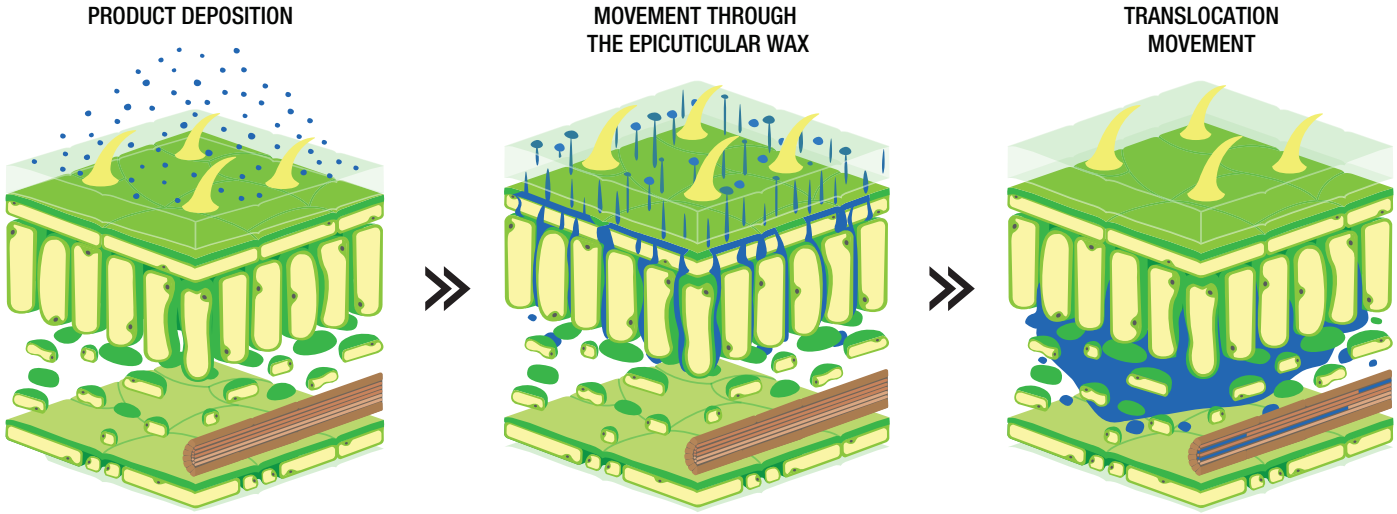


DROPLETS PER ½ INCH²



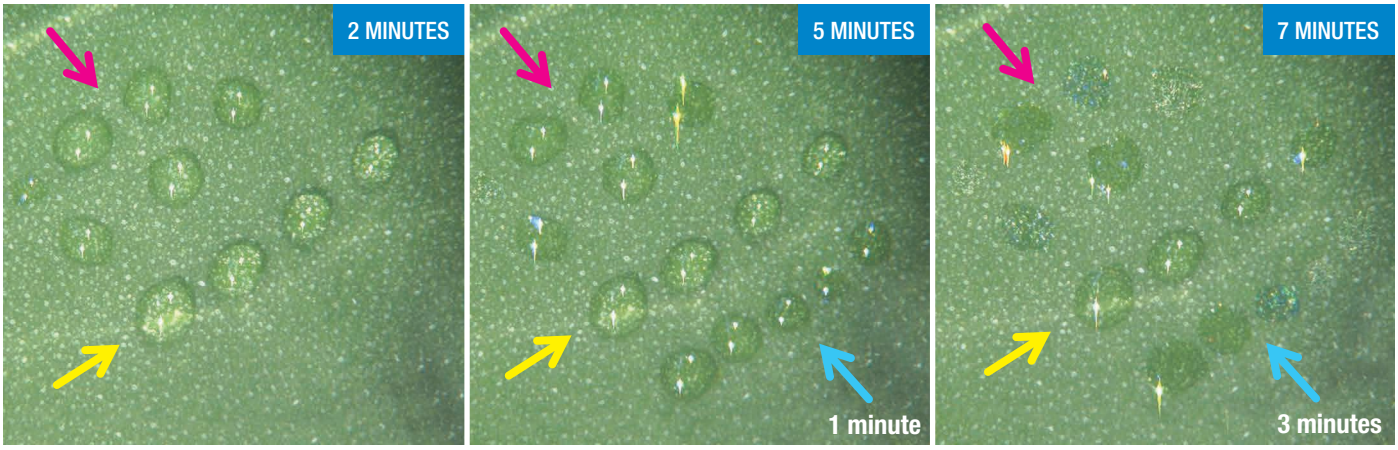
2. SUPERIOR PENETRATION

Leaf surfaces often present a formidable barrier to the delivery of systemic herbicides into the plant, as illustrated by the magnified photo of the fat hen leaf on pg. 2. However, **WETCIT** overcomes these barriers with a novel formulation that allows movement through the epicuticular wax on the leaf surface and between cells inside the leaf.



3. SUPERIOR ABSORPTION

In the Oro Agri-commissioned study, **WETCIT**, with **TransPhloem** technology, was shown to move a Roundup PowerMAX solution into the leaf more than twice as fast as a Roundup PowerMAX + MSO solution or Roundup PowerMAX 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.



- MSO 0.25% + Roundup PowerMAX
- Roundup PowerMAX w/o adjuvant

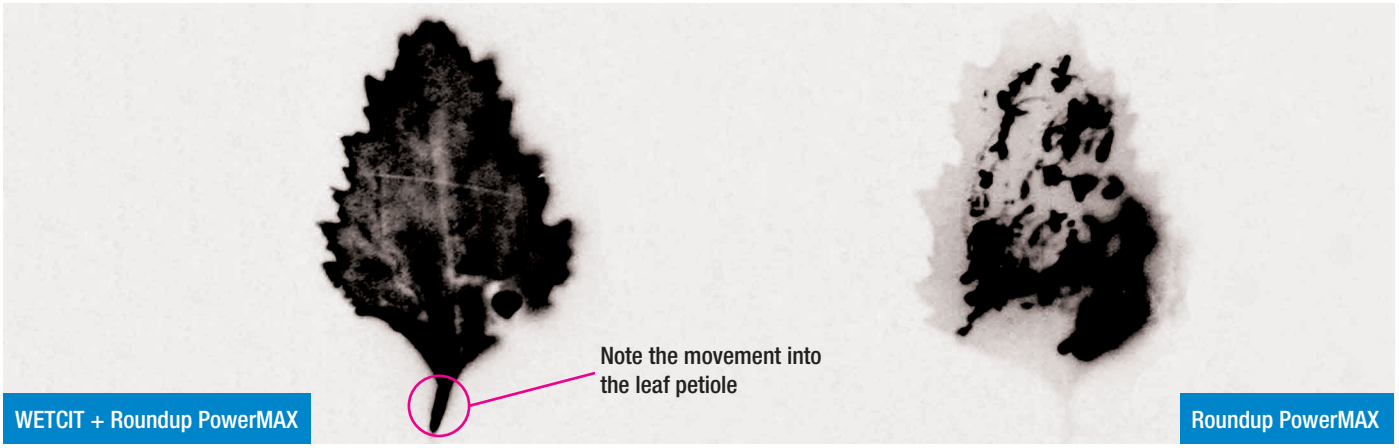
- MSO 0.25% + Roundup PowerMAX
- Roundup PowerMAX w/o adjuvant
- WETCIT + Roundup PowerMAX

- MSO 0.25% + Roundup PowerMAX
- Roundup PowerMAX w/o adjuvant
- WETCIT + Roundup PowerMAX

3. SUPERIOR ABSORPTION CONTINUED

The result of the excellent leaf absorption and penetration of **WETCIT** is shown in this photo from the recent study. A radio isotope solution of glyphosate, with and without **WETCIT**, was applied to a fat hen leaf. After only 15 minutes, the **WETCIT** application had penetrated, and was distributed, completely through the leaf whereas the penetration of the glyphosate alone was spotty. Also very significant is the movement of the **WETCIT** solution into the petiole for translocation only 15 minutes after application.

RADIO ISOTOPE HERBICIDE ABSORPTION - FAT HEN: 15 MINUTES AFTER APPLICATION

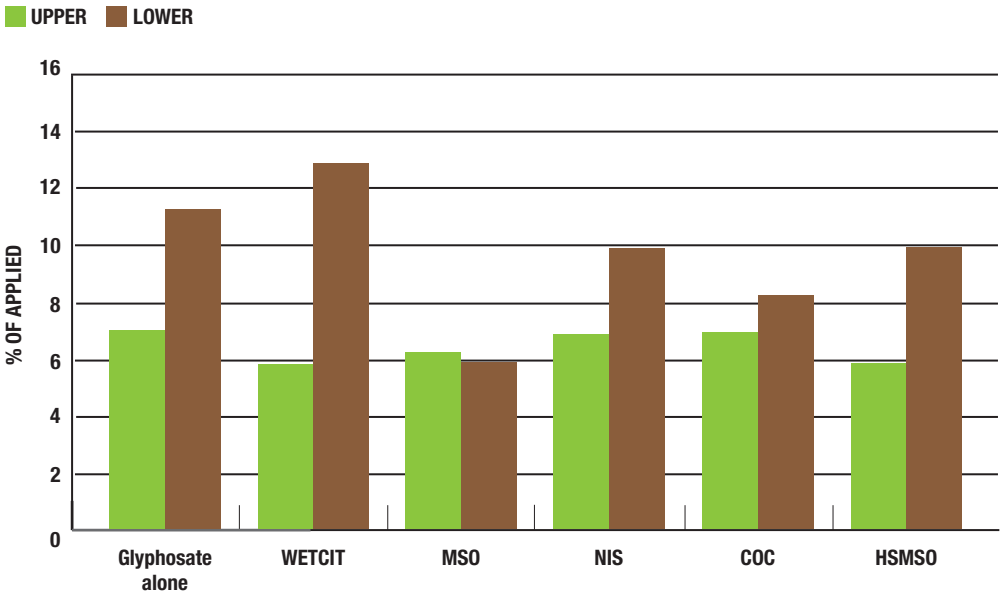


4. SUPERIOR TRANSLOCATION

TransPhloem technology effects the herbicide and adjuvant movement when it moves into the main stem of the weed. Research shows that when the improved **WETCIT** is added to glyphosate a higher percentage of applied herbicide is translocated, more quickly, compared to glyphosate alone or mixed with other adjuvants.

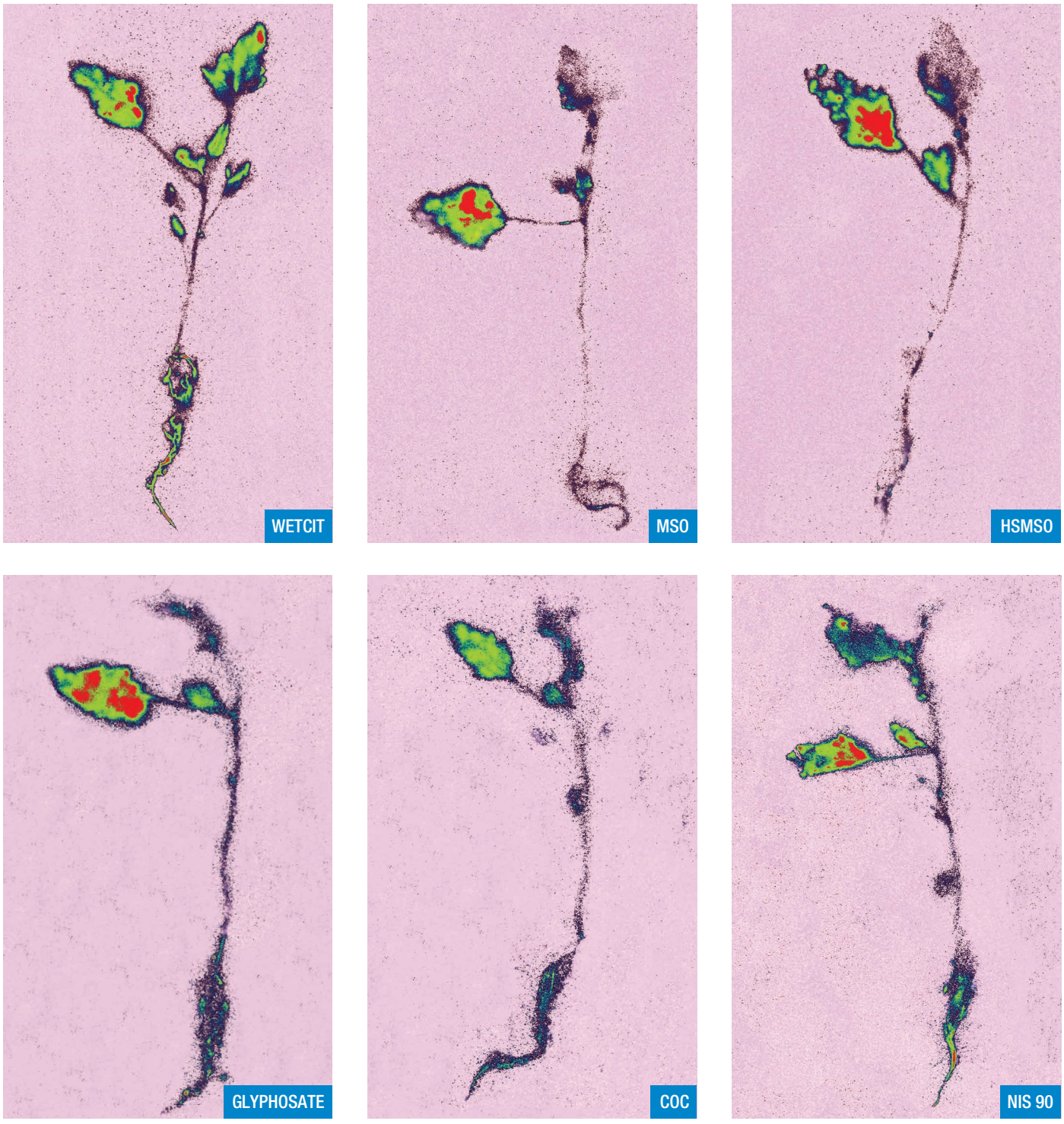
As importantly, **WETCIT** delivered more herbicide to the critical lower parts of the plant, and less upward in the plant, than any other adjuvant.

TRANSLOCATION OF GLYPHOSATE INTO FAT HEN PLANT SECTIONS AT 24 HOURS



Further proof of the superior translocation provided by **TransPhloem** technology is shown by these phosphor images of the C^{14} radio isotope glyphosate concentration in fat hen plants. A single leaf was treated with the glyphosate/adjuvant solutions. At 12 hours, the plants were uprooted and the phosphor images were taken. Only those parts of the plant that have some concentration of C^{14} glyphosate show up in the image. Red areas indicate high concentrations, green areas show medium concentrations, and blue areas show low concentrations. The **WETCIT**-treated plant has more area visible signifying the C^{14} 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.

FAT HEN: 12 HR AFTER APPLICATION - RADIO ISOTOPE PHOSPHOR IMAGES



THE RESULTS

WETCIT, with **TransPhloem** technology, moves systemic herbicides into the plants roots quicker and at higher concentrations than other types of adjuvants. The end result is a faster kill of weeds that rob your crop of moisture and nutrients. As shown in this controlled-environment pot study the **WETCIT** + glyphosate treated fat hen was killed quicker than any other adjuvant/glyphosate combination.

TRANSPHLOEM TECHNOLOGY COMBINED WITH SUPERIOR SPREADING, PENETRATION, AND ABSORPTION RESULTS IN A FASTER KILL

BURN DOWN HERBICIDE TRIAL - FAT HEN: WETCIT, COC, MSO, HSMSO & NIS 90

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.

LABEL USE RATES

HERBICIDES, DEFOLIANTS, DESICCANTS: 100 - 250 ml (0.1% - 0.25%) per 100 litres of water.

TO CONTROL HARD TO KILL WEEDS: 400 - 800 ml (0.4 - 0.8%) per 100 litres of water.

MIXING AND APPLICATION INSTRUCTIONS:

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

Always read and follow the product labels for more complete information and application directions.

For more information:

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