



UAA Quarterly

WINTER 2002

VOLUME 11

NUMBER 2

Ultra Low Volume Side Trimming: Another Tool in the Toolbox

By Joe Lentz, Arborchem Products Division
Kristin Wild, Asplundh

With thousands of miles of off-road rights-of-way to maintain, utility vegetation managers need to consider all the tools available to them. It helps to have a long-term, environmentally sound perspective and a plan to find the most effective method, or combination of methods, for the dollars spent.

There are at least three ways that a right-of-way can be side trimmed—manually with climbing crews, mechanically with rubber-tired or tracked lifts and cutters, or with herbicides. Choosing the right tool for the job is important. Just like you wouldn't use a sledgehammer to drive a tack into drywall, likewise you may not always need specialized equipment to side trim.

A new variation on side trimming—using the ultra low volume (ULV) Thinvert herbicide application system—shows potential for up to 40% improved productivity with

(Continued on page 4.)



Upon arriving at the Conectiv-Asplundh-DuPont demo-tour in New Jersey in August, more than 50 attendees learned first hand about a new variation in side trimming with herbicides. Ultra low volume (ULV) herbicide application—while not practical for every situation—is another excellent “tool in the toolbox” for vegetation managers.

Executive Director Comments

by Derek Vannice

One of the most important groups of volunteers who dedicate their time and effort to UAA is the Chapter Representatives. This group provides quarterly updates to be placed in each edition of the UAA Quarterly. They work very hard at trying to obtain information from UAA members in their chapters.

Most members that I talk to when I travel feel that the Rep. Reports are the best part of the newsletter. These reports keep them abreast of what is happening in our industry from around the country. Mergers, acquisitions, downsizing and new regulations are becoming common place in our industry. The reports from our

reps provide the latest information on what changes may be heading to other parts of the country.

The biggest issues that I hear when I talk to the reps are the difficulties and frustrations that they have when trying to contact various members in their chapter. They have to do a great deal of arm twisting and begging to get information. In many instances, they give up and write the article based on their own company. I would like to challenge each of you to contact your representative and provide him or her with information for the next issue of the newsletter.

The UAA Quarterly is the primary means of communication for utility arborists. To provide the most information and networking opportunities, we need the help of every member. You do not need to be a professional writer, just email your rep a couple of paragraphs on what is going

on with your company. This includes the contractors and consultants as well.

In each issue of UAA Quarterly, the Chapter representatives are listed with their email addresses. I encourage you to email them. The deadline for each issue of UAA Quarterly is the 15th of November, February, May, August. They need your help and you owe it to your profession.

Speaking of your profession, in this issue, you will find information on the ISA Certified Arborist/Utility Specialist program. The study guide is now available so what are you waiting for. Read the article and get started on obtaining the only professional credential for utility arborists. If after reading the information you still have questions, give me a call I would be glad to talk with you about the program.

Thank you for your support of our profession. ■

effective control. Depending on the location and condition of the right-of-way, ULV side trimming can be a great tool in the vegetation management toolbox.

Utility Arborists See For Themselves

Recently, the Arborchem Products Division of Asplundh teamed up with DuPont for a demo-tour to show the effectiveness of ULV side trimming on several miles of an off-road Conectiv 69kV transmission corridor in New Jersey. The Thinvert application system and Krenite® S, a bud inhibitor, have been used for the past two spray seasons on Conectiv rights-of-way to side trim and selectively treat woody plants directly under the conductors.

More than 70 people from 15 utilities attended the demo-tours, which took place on August 21 and October 11. System Forester Rick Johnstone, Conectiv Power Delivery, spoke about that particular right-of-way's management history and the utility's overall strategy in using herbicide applications. Arborchem's Joe Lentz also explained the history of ultra low volume applications from backpack, road-side and ATV cut/stubble treatments to this current method of side trimming. More importantly, demo-tour attendees saw how ULV side trimming applications are done and how the herbicide prevented the treated limbs from leafing out.

ULV Tools and Techniques

Critical to the success of this method is well-trained applicators and the right equipment. During the demo-tour, an Arborchem-trained Asplundh crew leader demonstrated the self-contained Thinvert Side-trimm'r™ application system which simply attaches to the bucket of a standard 55-foot aerial lift. The system requires that the herbicide (in this case, Krenite® S) be blended with Thinvert RTU®. This thin invert emulsion encapsulates the herbicide to reduce drift and improves the wettability, penetration and absorption into the plants' stomata.

Using a Widecast™ #1554 nozzle, which creates a 15-foot swath of uniform droplets, it is possible to daily treat 2,500 linear feet at a rate of 5 to 7 gallons per vertical acre. Conectiv and Asplundh fine-tuned the application method to include an applicator on the ground with a backpack sprayer who selectively treated undesirable vegetation on the floor. Using this method, a three-person crew with a lift truck can ULV side trim the walls and floor of the right-of-way—all in one pass.

Since Krenite® S is a bud inhibitor, the Asplundh applicators were careful to only treat lateral limbs growing toward the conductors and not to treat the tops of trees (the terminal bud) where injury cannot be tolerated. Low-growing species were not treated. It was also important to consider the amount of backside growth on the target trees in order to leave enough foliage to keep the tree alive. To soften the edges of the treated right-of-way, desirable trees such as the Holly seen in the pictures (below) were not treated, and the applicators left trees untreated wherever the transmission line crossed a road or was adjacent to a residence.

Demonstrations of ULV side trimming have been conducted with Arborchem and DuPont's assistance throughout the Midwest and South over the past two years and it is currently in operational use on two utility properties. For more information, a presentation or a demonstration, please contact your nearest Asplundh representative or Joe Lentz via e-mail: joelentz@arborchem.com or 215-760-9420.



Asplundh Crew Leader John Hymer demonstrates the self-contained Thinvert Side-trimm'r™ application system, which attaches to the bucket of an aerial lift. A Widecast™ #1554 nozzle makes a 15-foot swath of uniform droplets containing 10% Krenite® S blended with 90% Thinvert RTU®.



Here are the one-year results of ULV side trimming on the Conectiv 69kV transmission right-of-way in New Jersey. The green trees are low-growing species that were left untreated. Use of the ULV Thinvert application system provides a higher percentage of control, reduced understory damage of desirable vegetation, and higher crew productivity.



As a result of using Thinvert RTU®, Krenite® S, and trained Asplundh personnel, the treated area is clearly distinguished from the untreated area, which was near a residence. Depending on the condition of the right-of-way and its visibility to the public, this side trimming method can be a valuable tool in managing vegetation cost-effectively.

ULV Side Trim Facts

Herbicide used: Krenite® S
Manufacturer: Dupont

Mode of action

Bud inhibitor - Prevents treated limbs from leafing out the following year. As a result, they can not make food and eventually die. Treated laterals may still be green one year after application. In many cases, results are not noticeable until the next growing season with the exception of conifers. Conifers tend to show effects immediately. Half-life, depending on soil types, can be as low as one day.

History

Krenite® S has been and still is being used by roadside maintenance departments for side trimming on our nation's roadways to increase visibility around curves and signs, and reduce shading which in turn reduces icing. Many utilities have used Krenite with water as a carrier for high volume side trimming in low profile areas.

Ultra Low Volume

Applying at rate of 5 gallons of mix per acre or less, the Thinvert application system has made it possible for utilities, roadside specialists, invasive weed managers, and contractors to utilize "Ultra Low Volume" treatments, including: backpack, broadcast, bareground, and selective treatments for eradicating invasive species.

Thinvert Application System

The Thinvert Application System is a patented, "Ultra Low Volume" spraying system for use with herbicides, insecticides, and fungicides. The system requires that the pesticide be blended with Thinvert RTU(, which is a combination of phyto bland, paraffin oils, surfactants, emulsifiers, and water blended to make a thin invert emulsion. It is applied with specially designed nozzles that provide a uniform droplet size and pattern across the swath at a volume of 5 gallons per acre or less. At Ultra Low Volumes it is necessary to control drift. The thin invert encapsulates the herbicide, thereby reducing drift. The phyto-bland oil keeps the herbicide on the leaf for improved wetability, penetration and absorption into the plant's stomata. As a result, Ultra Low Volume applications achieve a higher percentage of control, reduced understory damage of desirables, and improved productivity. ■