

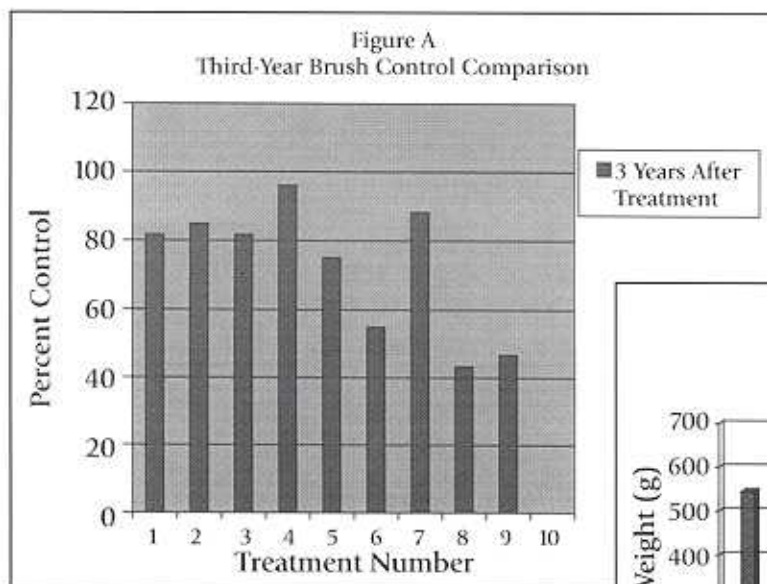
# NEW DATA SHOW HERBICIDE VALUE

## in ROW Maintenance Budgets and Wildlife Habitat

New research provides compelling evidence that controlling ROW vegetation with an IVM program including the proper mix of low-volume herbicides provides an economical and ecologically beneficial alternative to mowing. These studies also offer strong insight into the best tank mixes for the job.

At a recent brush tour in central Virginia, researchers from Virginia Polytechnic Institute and State University ("Virginia Tech") and Clemson University discussed studies that assessed the effect of various brush control treatments on species population dynamics. In addition, new research investigating the suitability for wildlife to ROW vegetation control was reviewed.

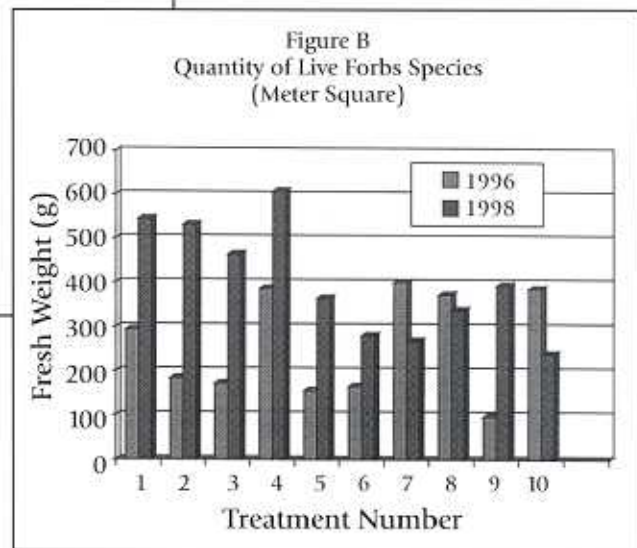
An evaluation of different brush control treatments was presented by P. Lloyd



Hipkins, senior research associate and extension weed scientist with the Department of Plant Pathology, Physiology and Weed Science at Virginia Tech. Hipkins' three-year study compared mowing followed by eight herbicide regimens to mowing alone and an untreated control area.

In general, all herbicide treatments increased plant species diversity, as compared to mowing. One year after treatment, 38 percent more plant species

were identified on treated plots. Rare species observed included Epling's hedge-nettle (*Stachys eplingii*), Larkspur-leaved tickseed (*Careopsis x delphinifolia*) and brown bog sedge (*Carex buxbaumii*). However, the degree of diversity varied significantly among treatments.



Applications were made in June of 1996 with a RADIARC<sup>®</sup> nozzle at 35 gal./acre in Ladysmith, Va.

Source: Hipkins, L. 1998. Brush Control Report. Virginia Polytechnic Institute and State University, Blacksburg, Virginia, p. 1.



## TREATMENT LIST

- 1 ARSENAL\* 1 pt./acre
- 2 ARSENAL 1 pt./acre + ACCORD\* 4 qt./acre
- 3 ARSENAL 1 pt./acre + ESCORI\* 2 oz./acre
- 4 ARSENAL 1 pt./acre + KRENITE\* 1.5 gal./acre
- 5 ARSENAL 1 pt./acre + GARLON\* 3A 2 qt./acre
- 6 ARSENAL 1 pt./acre + TORDON\* K 2 qt./acre
- 7 ACCORD 10 qt./acre
- 8 GARLON 3A 3 qt./acre + TORDON\* K2 qt./acre
- 9 Mowing
- 10 Untreated

The treatment that provided the best control of woody species, which in turn, fostered the most diverse plant population was a mix of ARSENAL\* herbicide plus KRENITE. This mix controlled more than 90 percent of woody species during the three-year period and resulted in the greatest amount of forb vegetation (see Figures A and B).

The rate of the foundational product—ARSENAL at 1 pt./acre—in this tank mix is commonly recommended for brush control in northern geographies (i.e., the Virginia Tech test site). It's important to consider, however, that the most effective rates vary by geography, species and brush density. For example, 1.5 pt./acre of ARSENAL is usually required in the South.

A separate study, presented by Dr. Drew Lanham, assistant professor, Department of Forest Resources at Clemson University, evaluated the effects of low-volume herbicide treatments on ROW wildlife habitat versus mechanical methods.

From this study, the researchers concluded that herbicide treatments of ROW may provide more favorable habitat for bobcat, eastern cottontail and white-tailed deer, because in herbicide-maintained

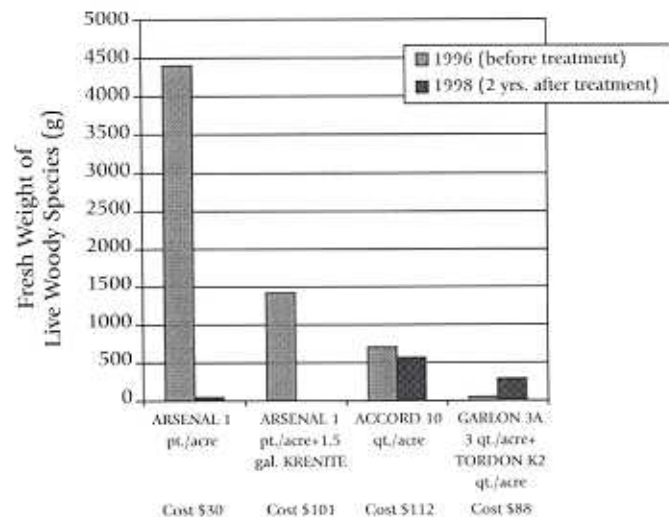
plots, the desirable species present do not dramatically change over time.

The studies highlight the effectiveness and wildlife benefits of the strategic combination of mechanical methods, followed the next year by a low-volume herbicide treatment using ARSENAL\* herbicide as the foundation for a tank mix. ARSENAL offers broad-spectrum, long-term control of tall-growing hardwoods, shifting the vegetative mix toward low-growing, and therefore, low-maintenance vegetation that provides wildlife with more food sources. In addition, it completely controls the tough-to-control species, providing a highly cost-effective treatment option (see Fig. C).

\*Estimated herbicide costs may vary depending on manufacturer packaging, programs and geographic location.

Applications were made in June of 1996 with a RADIARC\* at 35 gal./acre in Ladysmith, Va.

Figure C  
What Are Your Maintenance Dollars Paying For?



Source: Hiplins, L. 1998. Brush Control Report. Virginia Polytechnic Institute and State University, Blacksburg, Virginia. p. 1.

The initial investment proves worthwhile because, between years five to seven, all that is needed to maintain the ROW are "spot" low-volume foliar applications of ARSENAL\* herbicide or basal applications of STALKER\* herbicide to "touch up" the site. The control from these herbicides is so effective that you may not have to make another "touch up" treatment for another five years! At this point, the ROW practically manages itself because the low-growing vegetation helps shade out undesirable trees and brush. ●