

Creating Sustainable, Biodiverse Habitats and Rights-of-Way



Benefits of IVM

- Provides habitat for birds, insects and wildlife
- Reduces burning of fossil fuels
- Lowers your company's carbon footprint
- Minimizes soil erosion and stream sedimentation
- Requires fewer inputs over time
- Reduces equipment operating and maintenance costs

Key Findings from SGL33 Research Project

- Vegetation management practices that include the use of selective herbicides result in diverse vegetation that provides forage and habitat for wildlife on rights-of-way.
- Bird abundance is about sevenfold higher within the treated right-of-way compared to the adjacent forest.
- The number of bird species is 33 percent greater on herbicide treated units compared to those that were mechanically treated.
- Small mammal populations and diversity is greater within the treated right-of-way than the adjacent forest.
- Flowering forbs and wildflowers occurring within the right-of-way provide excellent habitat for butterflies.
- The most diverse collections of bees were gathered from sites where individual, noncompatible and/or non-native plants were selectively treated using low volume basal or low, ultra-low volume foliar herbicide applications.
- The least diverse collections of bees were gathered from sites that had used broadly applied treatments such as mowing, hand-cutting, or herbicide which didn't maintain a diverse population of flowering plants.

Integrated Vegetation Management (IVM) Helps Your Bottomline and the Environment

Maintaining vegetation along rights-of-way is a constant challenge and requires significant labor and operating resources. By practicing integrated vegetation management (IVM) you can help your company's bottomline while enhancing biodiversity and the environment.

Focusing on promoting native low-growing plants instead of constantly cutting and removing woody plants and brush reduces the need for routine mowing, which will lower your company's carbon footprint, and reduce the burning of fossil fuels by mowers and other equipment.

With IVM, rights-of-way corridors can be managed to restore native prairie and meadow habitats that are attractive to the community and provide food and shelter for a wide variety of birds, insects and other wildlife. Soil erosion and stream sedimentation are also minimized, improving water quality.

IVM is a well-developed process for managing vegetation that relies on a combination of methods including the use of herbicides to promote sustainable, stable plant communities compatible with the intended use of the site.

Adopting a true IVM approach encompasses a management strategy based on managing for an outcome vs. simple control of a problem. Adhering to this type of holistic approach leads to an efficient system that requires fewer inputs over time.

Long-term ecological research has demonstrated the use of IVM principles in rights-of-way management is compatible with establishing and maintaining biodiverse plant communities and habitats for wildlife species of high public interest. Plant communities can be selectively managed to support reliable electric service and a diverse plant community for wildlife habitat.

Additionally, managing rights-of-way using IVM principles is considered an industry best management practice.

Types of Individual Plant Treatments



Hydraulic Foliar



Low Volume Foliar



Low Volume Dormant Stem



Low Volume Basal



Cut Surface (hack and squirt)



Cut Surface (cut stump)

Vegetation Management Techniques

Research indicates selectivity is the key to establishing and maintaining habitats favorable for pollinators and other wildlife species of high public interest. When considering which vegetation management technique is best suited for creating or maintaining the desired habitat, there are many factors to consider. If the site is full of incompatible vegetation, an approach using a broadcast treatment (mow or herbicide treatment) may initially be best as it's important to eliminate the incompatible plant species to allow the growth and development of the compatible species.

If the site primarily consists of desirable vegetation, a more selective, targeted approach such as individual plant treatments (IPT) aimed specifically at the incompatible species is best. Incompatible vegetation defined as species not compatible with the intended use of the site can pose a significant threat to the establishment or maintenance of the desired plant community. Examples of incompatible plant species could be tall growing woody plants in the case of electric utility lines or noxious weeds, invasive plants which displace desirable forbs and grasses which serve as critical habitat for a variety of wildlife species.

Individual plant treatments are the preferred management technique for sites primarily dominated by compatible vegetation.

Partnership and Product Selection

Keeping our infrastructure and right-of-way areas accessible and safe while supporting responsible and sustainable vegetation management demands both smart strategy and the right products. Corteva Agriscience™ offers the expertise and industry insights along with the innovative products and technical resources to support your work and advance your company's sustainability commitments. We build sustainability into our product development process and advance products that address customer needs in an environmental and sustainable way. Corteva Agriscience has won six U.S. EPA Presidential Green Chemistry Challenge Awards, demonstrating our commitment to developing sustainable solutions.

We work closely with the rights-of-way industry to ensure that the latest thinking and technology is used for managing vegetation, while enhancing biodiversity and protecting the environment.

Corteva Agriscience has an experienced and dedicated team of territory managers across the U.S. committed to assisting vegetation managers develop a vegetation management program that enables them to accomplish their management objectives and support their organization's sustainability goals. Our team is backed by field scientists and years of research dedicated to selective vegetation management. Our broad and diverse product portfolio is well-suited to implementing IVM best management practices and enhancing biodiversity.

We are committed to continuing to drive sustainable innovation that helps to bring progress and prosperity for our customers, communities, stakeholders, and future generations.

For more information go to www.vegetationmgmt.com or contact your local Corteva Agriscience Vegetation Management Specialist.

Reference: The Pennsylvania State Game Lands 33 (SGL33) research project. Full papers are available for download @<https://sites.psu.edu/transmissionlineecology/>.

Industry standard ANSI A300

Part 7 (2019) and ISA BMP "Integrated Vegetation Management" 2nd Edition (2014) define IVM on Utility ROW.

The ROW Stewardship's Council's IVM "Accreditation Requirements" (2016) define IVM principles and practices for ROW in detail.

Moisset, B. and S. Buchmann. 2015. Bee Basics: An Introduction to Our Native Bees.

A USDA Forest Service and Pollinator Partnership Publication. 42 pages.