IOWA DEPARTMENT OF TRANSPORTATION
INTEGRATED ROADSIDE VEGETATION MANAGEMENT PLAN

DEFINITION:

Integrated Roadside Vegetation Management (IRVM)

A long term approach to vegetation management that:

1. Systematically evaluates each area to be managed.
2. Determines which plant communities best fit the area.
3. Develops procedures that will encourage, enhance or reestablish desirable plant communities.
4. Provides self-sustaining, diversified, visually interesting vegetation.
5. Keeps safety and an improved environment as priorities.
6. Utilizes the most beneficial methods to prevent or correct undesirable situations caused by disturbance or less than optimum vegetative ground cover.

INTRODUCTION:

The prime purpose of road corridors is to transport people and goods safely and efficiently from one location to another.

The prime purpose of roadside vegetation is to hold soil in place without creating hazards.

The Department's vegetation management goals must meet certain safety and functional requirements before aesthetic, recreational, or economic considerations can be addressed. These are to maintain a clear zone recovery area, meet minimal sight distance requirements and provide for erosion control. We are also required by Iowa law to mow or otherwise control noxious weeds.

Through the use of IRVM, we should be able to meet the prime purposes, provide a safe corridor for travel and address other desirable uses for roadside vegetation.

The goals of the Integrated Roadside Management Plan are to:

1. Preserve and provide safe, functional and environmentally improved corridors of travel throughout the state.

2. Utilize a long-term integrated management program that promotes desirable self-sustaining plant communities. Encourage those plant communities that are native to Iowa through preservation and reestablishment whenever practical.

3. Bring about considerable reduction and possible elimination of the use of chemicals as a control method of undesirable plants.

4. Enhance the scenic qualities of the roadsides and their value as wildlife habitat.

PROCEDURES FOR INTEGRATED ROADSIDE MANAGEMENT:

1. Inventory the sites to be managed.

2. List the existing areas of desirable vegetation as well as those that need improvement.

3. Determine the appropriate management methods needed.

4. Determine the best time to implement management procedures and see that they are accomplished at that time. Temporary procedures may be needed to preserve an area before permanent procedures can be utilized.

5. Evaluate the results periodically.

6. Take further measures if necessary.

INTEGRATED ROADSIDE VEGETATION MANAGEMENT METHODS:

Integrated vegetation management includes the use of cultural, mechanical, biological and chemical practices. Each location must be evaluated to determine the method to be used. One or more of the following will be used:

1. Cultural Methods.

   Cultural controls can be achieved through the introduction and management of desirable plants or the use of mulches to control noxious weeds and other undesirable plants. Many native plants are poor competitors in their early stages of growth, but once established they crowd out most other plants with minimum management.

   Although controlled burning is recognized as a valuable tool for enhancing and maintaining native plant communities, the Department recognizes the potential for creating possible problems when burning roadside vegetation. Therefore, the Department will limit controlled burning to research and demonstrations to gain experience and define proper procedures and parameters.

2. Mechanical Methods.

   This involves anything from complete tillage for reseeding to hand scythes, shovels, large tractor mowers, string trimmers, push mowers, pruning shears, etc. for weed control and desirable vegetation maintenance.

3. Biological Methods.

   This involves the use of animals, insects, bacteria or virus to control plant growth. One specific bacillus has been used for many years for larval control of insects and could possibly be used in the ROW if necessary. Further research will be needed on other possible biological controls before the Department will recommend them.

4. Chemical Methods.

   Selection of chemicals to be used shall be based on their label constraints and residual effects on the environment. They will be monitored to document their effectiveness and impacts upon target and non-target species.

   There are several new herbicides with very specific effects on specific plant species. These herbicides can be valuable tools for controlling undesirable plants on a short term basis.

EDUCATION AND INFORMATION:

As part of the Department's IRVM plan, it will:

1. Develop a public awareness campaign to gain support for integrated management through media, established organizations, seminars and brochures.

2. Develop educational and informational material on IRVM to be presented in seminars and distributed to adjacent land owners, the general public, consultants and contractors.

3. Provide guidelines and directives for contractors and others who seed, plant and maintain roadsides.

4. Prepare and distribute instructions to state, county and city personnel on preservation of desirable areas and treatment of areas that need improvement.

5. Gather, develop and distribute information with other jurisdictions; seek and share information with other states.

6. Encourage research in all aspects of IRVM, eg: road design for improving IRVM, planting methods, management practices, seed sources, seeding rates, seed mixes, planting equipment, etc.

7. Encourage Iowa production of native seeds and plant materials for use in the rights of way.

This is a flexible plan that requires common sense interpretations with changes as necessary to fit the ever changing, complex circumstances realized in vegetation management throughout the state of Iowa.