SOUTH DAKOTA WEED AND PEST COMMISSION LONG RANGE OBJECTIVES FOR THE SOUTH DAKOTA DEPARTMENT OF AGRICULTURE WEED AND PEST CONTROL PROGRAM

DIRECTIVE	PAGE
I. ENVIRONMENTAL ISSUES	
A. Respond to Federal Rules, Environmental Assessments, and Environmental Impact Statements	2
B. Implement Species Management Plan Requirements	2
C. Feedback	2
II. RESEARCH AND TECHNOLOGY	
A. Initiate IPM Focus	2
B. Foster Applied Research	3
C. Initiating Technological Transfer	3
D. Feedback	3
III. INTEGRATED PEST MANAGEMENT SYSTEMS	
A. Implementation of Commission IPM Policies	3
B. Utilization of the IPM Decision Making Process	3
C. Implementation of IPM Strategies	3
IV. NOXIOUS WEED AND DECLARED PEST MANAGEMENT PLANS	
A. Plan Outline	4
B. Initiating Site-Specific Management Practices	5
C. Fostering a Holistic Approach	5
V. COORDINATED CONTROL	
A. Federal Plans	5
B. State Plans	5
C. County Plans	5
D. Cooperative Agreements	6
E. Feedback	6
VI. FULL TIME COUNTY WEED AND PEST SUPERVISORS	
A. Outlining Job Qualification Criteria	6
B. Implementing Certification Training and Testing	7
C. Conducting Continuing Education Classes	7
D. Feedback	7
VII. NOXIOUS WEED MAPPING PROGRAM	
A. Initiation of Weed Mapping System	7
B. Project Funding	7
C. Continuation and Improvements	7
D. Feedback	7
VIII. EARLY DETECTION AND RAPID RESPONSE PROGRAM	
A. Initiation of Early Detection Program	8
B. Initiation of Rapid Response Plan	8

C. Feedback 8

IX. Prevention

A. Initiation of a Weed and Pest Prevention Program 8
B. Feedback 8

SOUTH DAKOTA WEED AND PEST COMMISSION LONG RANGE DIRECTIVES FOR THE SOUTH DAKOTA DEPARTMENT OF AGRICULTURE WEED AND PEST CONTROL PROGRAM

I. ENVIRONMENTAL ISSUES

A. Respond to weed and pest management issues during the review and preparation of rules, Environmental Assessments (EA) and Environmental Impact Statements (EIS) by federal agencies through evaluation and identification of:

1. Existing needs not currently being met using the systematic, interdisciplinary process as required by National Environmental Policy Act (NEPA).
2. Potential impacts of proposed alternative strategies on weed and pest management strategies.
3. Alternative strategies considered but eliminated from further study.
4. Present and future socio-economic consequences of striving to achieve and maintain biodiversity through "preferred" alternative strategies.
5. Selected management scenarios and their effects on current weed and pest management practices and compliance with state statutes.
6. Indirect impacts and their subsequent environmental consequences.

B. Implement Species Management Plan Requirements.
Support Integrated Pest Management (IPM) strategies to control noxious weeds and pests through:

1. Preventing the introduction or movement of noxious weeds and declared pests into uninfested areas,
2. Eradication of new or isolated infestations, and
3. Suppression of established stands of noxious weeds and pests within generally infested areas in order to reduce populations to below economic levels and to greatly reduce the rate of spread.

C. Feedback
1. Request comments.
2. Evaluate and analyze content.
3. Adjust policies, procedures, programs, etc. as necessary.

II. RESEARCH AND TECHNOLOGY

A. Initiate IPM Focus

Research not only the primary but also secondary and tertiary effects of pest control applications, leading to the development of integrated pest control systems in which all possible factors are determined for the control of a given pest. Investigate combinations of legal, chemical, cultural, and biological methods of control with each separate process being applied for a specific purpose with the result that the over-all combination ensures control of the target pest.

B. Fostering Applied Research

SDSU Cooperative Extension Service/SDSU Agricultural Experiment Station to maintain lead responsibility as outlined in the "Agreement for the Coordinated Control of Noxious Weeds" to provide for effective integrated noxious weed management recommendations.

C. Initiating Technological Transfer

Extension and Department of Agriculture personnel to act as liaisons in disseminating University research and technology on IPM systems to County Weed and Pest Control Boards as well as the public. Such transfer of technology to be facilitated through bulletins, handbooks, training classes, demonstration control plots, slide presentations, and noxious weed and declared pest species management plans.

D. Feedback

1. Request comments.
2. Evaluate and analyze content.
3. Adjust policies, procedures, programs, etc. as necessary.

III. INTEGRATED PEST MANAGEMENT SYSTEMS

A. Implementation of Commission IPM Policies

1. Utilize a systems approach to noxious weed and declared pest control.
2. Utilize and implement plant quarantines and other preventative measures to prevent or reduce the potential introduction and establishment of new noxious weeds and to prevent the artificial movement of noxious weeds into uninfested areas.
3. Research and apply economic thresholds for the management of noxious weeds and declared pests.
4. Research, identify, and implement economic control strategies/methodologies.
5. Practice the concept of site-specific noxious weed and declared pest management utilizing weed management areas and cooperative management projects.
6. Continue to focus on utilizing alternative strategies for noxious weed and declared pest control.

B. Utilization of the IPM Decision Making Process. An orderly process of decision making is a necessary part of Integrated Pest Management to effectively plan and carry out IPM strategies for the management of noxious weeds and declared pests. The following process should be considered as it identifies the best method or methods for an integrated approach to weed and pest management:

1. Detection of Pest
2. Identification of Pest
3. Biology and Habits of Pest
4. Economic Significance of Pest Control
5. Selection of Treatment Methods
6. Treatment of Pest
7. Evaluation of Treatments
8. Record keeping

C. Implementation of IPM Strategies

Integrated Pest Management utilizes the above-described decision-making process based on site-specific information upon which decisions about treatment methods are made. It is highly unlikely that any one control method used by itself will be successful. In almost all situations a combination of compatible control methods will be necessary including legal, chemical, cultural, and biological controls. "No Action" is never a viable option. The following control options should be considered as part of IPM plans:

1. Legal controls
   a. Quarantines
   b. Certified Seed
   c. Noxious Weed Free Forage
   d. Forced compliance

2. Chemical control
   a. Herbicides
   b. Application regimes
   c. Methodology

3. Biological control
   a. Natural competition
   b. Introduced competition

4. Cultural control
   a. Manual control
   b. Mechanical control
   c. Burning
   d. Smothering
   e. Natural competition
   f. Livestock manipulation
   g. Wildlife manipulation
   h. Soil disturbance management

IV. NOXIOUS WEED AND DECLARED PEST MANAGEMENT PLANS

A. Plan Outline

A specific plan is needed to identify IPM strategies for the management of each state noxious weed and pest. Documentation is needed to address environmental concerns and to obtain program funding and personnel. The plans shall provide the point of reference for Commission work plans (annual and long-term), land managing agencies, county land-use plans, and each protective operation or remedial action. Plans will also reveal areas where additional research is necessary to adequately manage species on a site-specific basis. Plans should address the follow areas:

1. Biological Characteristics
   a. Description-Identification
   b. Similar species
   c. Habitat
2. Negative Impacts of Noxious Weed or Declared Pest

3. Establishment of Management Areas
4. Integrated Pest Management Plan
   a. Public awareness and education
   b. The IPM decision making process
   c. Strategies/methodologies
      (1) Legal control
      (2) Chemical control
      (3) Biological control
      (4) Cultural control
5. Prioritization
   a. Individualize infestations within a management area and consider all IPM management strategies.
   b. Determine achievable management objectives based on prevention, eradication, or suppression.
   c. The level of control to be the same for all land managers within an established management area.
   d. Balance resources available for control with potential noxious weed and declared pest costs.

B. Initiating Site-Specific Management Practices

1. Implement the Weed Management Area (WMA) concept, utilizing this practice for declared pests as well.
2. Utilize the IPM decision making process during site analysis.
3. Implement functional IPM systems.
4. Strive for high economic benefit + low environmental impact.

C. Fostering a Holistic Approach

Private and public land managers as well as county weed and pest boards should strive to act in a cooperative effort, achieving noxious weed and declared pest control results through the use of MOU's, Cooperative Agreements, as well as short and long range work plans.

V. COORDINATED CONTROL ACTIVITIES

A. Federal Plans

"Memorandum of Understanding" in place to meet the goals of the South Dakota Noxious Weed and Pest Control Program. "Guidelines for the Coordinated Management of Noxious Weeds in South Dakota" developed by the Interagency Working Group will provide direction to coordinate the control of noxious weeds among federal agencies under the MOU.

B. State Plans

"Agreement for the Coordinated Control of Noxious Weeds" signed by land managing agencies of the State of South Dakota to meet the goals of the South Dakota Noxious Weed Control Program. Each of the state agencies identified in the agreement have agreed to report their plan for the control of noxious weeds within their respective area of responsibility. The "Guidelines for the Coordinated Management of Noxious Weeds in South Dakota" and the "South Dakota Weed and Pest Control Commission Policy Statements" are to be used as references in the development of annual work plans for the management of noxious weeds in South Dakota.

C. County Plans

1. County Noxious Weed and Declared Pest Work Plans

SDDA to assist counties in developing and finalizing annual noxious weed and declared pest control planning focusing on weed management areas and cooperative projects as part of the work plans. Annual and long-range county work plans for noxious weed and declared pest control to be submitted to the South Dakota Weed and Pest Commission at their annual meeting.

2. County Land Use Plans

SDDA to provide technical assistance to County Commissions through County Weed and Pest Boards to include legal requirements for the control of noxious weeds and declared pests in County Land Use Plans. SDDA to provide assistance to counties to also incorporate noxious weed and declared pest management in county land use plans.

D. Cooperative Agreements

1. Tribes and County Weed and Pest Boards MOU in place with U.S. Dept. of Interior, Bureau of Indian Affairs as part of "Guidelines for the Coordinated Management of Noxious Weeds in South Dakota". SDDA to continue working with County Weed and Pest Boards and Tribes to establish Cooperative Agreements for the coordinated control of noxious weeds and declared pests on private, public, and tribal lands at the local level in counties within the State of South Dakota. Communication links will be established and maintained among the SDDA, County Weed and Pest Boards and all tribes throughout South Dakota including:

a. Sisseton and Wahpeton
b. Yankton Sioux
c. Crow Creek
d. Lower Brule
e. Standing Rock
f. Cheyenne
g. Rosebud
h. Pine Ridge

E. Feedback

1. Request comments.
2. Evaluate and analyze content.
3. Adjust policies, procedures, programs, agreements, etc. as necessary.

VI. COUNTY WEED AND PEST SUPERVISORS

Department to strive to continue enhancement of County programs by outlining job qualification criteria, implementing a certification training and testing process, and conducting continuing education classes.)

A. Recommended Standard Job Qualification Criteria

1. A High school diploma plus 2 seasons of technical experience in weed and pest management.
2. Valid South Dakota Driver's License.
3. Valid Commercial Applicators License plus endorsements.
4. Enrollment in necessary correspondence courses for technical training.
5. Ability to travel - multiple overnights required.
6. Demonstrates measurable ability to make team contributions and to act on others ideas.
7. Demonstrates measurable ability to mandate and follow oral/written directives.
8. Demonstrates measurable ability to write and present clear, concise, and accurate reports as well as documents and presentations.
9. Demonstrates measurable initiative to operate technical activities without direct supervision.

10. Demonstrates measurable problem-solving ability, maintaining accountability for actions.
11. Demonstrates measurable interpersonal skills, communicating openly and directly.
12. Demonstrates measurable ability to function adequately under stress.
13. Demonstrates measurable ability and flexibility for managing responsibilities and decision making skills.
14. Demonstrates measurable ability to function in multiple roles at a given time.
15. Demonstrates measurable organization and time management skills.
16. Demonstrates measurable ability to serve as a positive role model for employees being supervised.

B. Implementing Certification Training and Testing

1. Conduct state and locally noxious weed and pest identification.
2. Review applicable IPM practices on state and locally noxious weeds and pests.
3. Review pertinent state weed and pest control statutes, rules, and commission policies concerning weed and pest control.
4. Outline weed and pest control equipment calibration.
5. Outline control plot establishment and demonstration.
6. Utilize weed and pest control performance evaluations.
7. Outline weed and pest program supervisory roles.
8. Conduct Public relations skills sessions.
9. Highlight successful County Weed and Pest Control Program as directed by effective County Weed and Pest Boards.
10. Review reporting and record keeping as required by County Weed and Pest Boards and the South Dakota Weed and Pest Control Commission.

C. Conducting Continuing Education Classes

1. Annual training attendance a necessity of maintaining certification.
2. Additional classes/training to be prepared and offered by the Department and SDSU Extension.
3. Applicable coursework and training to be substituted per approval by the Department.
4. Training provided by Department of Agriculture on enforcement issues.

D. Feedback

1. Request comments.
2. Evaluate and analyze content.
3. Adjust policies, procedures, programs, etc. as necessary.

VII. NOXIOUS WEED MAPPING PROGRAM ACTIVITIES

A. Initiation of Weed Mapping System

1. Foster county mapping efforts.
2. Facilitate a statewide weed and pest mapping program.
3. Establish coordinated, mapping protocol.
4. Facilitate a statewide weed inventory data base.
5. Increase efficiency of weed and pest control program.

B. Continuation and Improvements

1. Strive to get statewide coverage on all noxious weeds
2. Increase efficiency of weed and pest control program activities/budgets
3. Develop system using data to prevent the spread of an infestation

C. Feedback

1. Request comments.
2. Evaluate and analyze content.
3. Adjust policies, procedures, programs, etc. as necessary.

VIII. EARLY DETECTION AND RAPID RESPONSE PROGRAM

A. Initiation of Early Detection Program

1. Foster a county early detection program.
2. Facilitate a multi-state early detection-reporting network.
3. Facilitate a volunteer statewide early detection reporting network.
   a. Facilitate identification of new invasive weeds or pests.
   b. Facilitate a rapid assessment of the invasiveness of a new invasive weed or pest.

B. Initiation of Rapid Response Plan

1. Facilitate the development of a rapid response options.
2. Facilitate eradication and control.
3. Facilitate the removal of barriers and constraints to rapid response.

C. Feedback

1. Request comments.
2. Evaluate and analyze content.
3. Adjust policies, procedures, programs, etc. as necessary.

IX. <u>Prevention</u>

A. Initiation of a Weed and Pest Prevention Program

1. Facilitate the identifaction of a weed or pest that may meet the definition of "quarantine pest".
   a. Discovery of an established infestation or an outbreak of a new weed or pest in a adjoining state
   b. Identification of a new weed or pest risk through literature search or other research.
   c. Petition or proposal from outside the commission
2. Prepare a risk assessment for that weed or pest
3. Solicate and analyze and respond to public comments

B. Feedback

1. Request comments.
2. Evaluate and analyze content.
3. Adjust policies, procedures, programs, etc. as necessary.

Lynn Deibert

LYNN DEIBERT, CHAIRMAN
SOUTH DAKOTA WEED AND PEST CONTROL COMMISSION

2/21/11
DATE