

Southeastern Arizona – Southwestern New Mexico Noxious Weed Word Group

Western IPM Center

PROJECT NARRATIVE

Previous Work, Related Experience, and Justification

The spread of noxious weeds on public, state trust and private lands in southeastern Arizona and southwestern New Mexico poses risks to native and rangeland animals, threatens biodiversity and native plant species, damages park land and natural resources, and causes economic hardship for farmers, ranchers, and municipalities.

The geographic region comprising Cochise, Graham and Greenlee counties in Arizona and Grant and Hidalgo counties in New Mexico has relatively small infestations of noxious weeds compared to many other areas in the West. This gives us a unique opportunity to be proactive and to initiate integrated control strategies to eliminate noxious weed populations before it becomes economically not feasible to do so. Known infestations of several noxious weed species have been noticeably spreading over the last five years, including Russian knapweed, malta and yellow starthistle and several other species (Table 1). In addition, a substantial acreage of previously unknown infestations have been detected since 2007. There are undoubtedly more infestations that we do not currently know about. Areas infested with noxious weeds include rangelands, roadways, state and national forests, tribal lands, crop fields, river bottoms, private yards and urban areas. Because of the number of agencies and organizations engaged in noxious weed management over this area, in 2008 we identified a need to improve communication, share resources, identify stakeholder priorities, and develop a strategic plan for coordinating efforts to address these needs, including plans to seek additional significant funding to coordinate and carry out noxious weed management.

Table 1. Noxious Weed Species Found in Southeastern Arizona and Southwestern New Mexico by County.

| | Cochise | Graham | Greenlee | Grant | Hidalgo |
|--------------------------|---------|--------|----------|-------|---------|
| Russian knapweed | X | | X | | |
| Malta starthistle | X | X | X | X | X |
| Yellow starthistle | ? | | X | X | X |
| Onionweed | X | | X | | X |
| Whitetop | | | X | | X |
| Sweet resinbush | | X | | | |
| Karoo bush | | X | | | |
| Saharan mustard | X | X | | | |
| Bufflegrass ¹ | | X | | | |
| African rue | X | | | X | X |
| Bull thistle | | | X | X | X |
| Dalmation toadflax | | | | X | |

? means that there has been a report, but it has not been confirmed.

¹ ADOT found and treated one plant along HWY 191 in 2007.

Supported by a WIPMC Special Issues grant, the Southeastern Arizona Weed Management Area (SEAZWMA) and the Southwestern New Mexico Cooperative Weed Management Area (SWNMCWMA) pulled together stakeholders in December 2008 to begin working on a collaborative strategic plan. This group included participants from University of Arizona and New Mexico State University Cooperative Extension; USDA Forest Service, Natural Resources Conservation Service, and APHIS-PPQ; USDI Bureau of Land Management; three local Natural Resource Conservation Districts; Arizona and New Mexico Departments of Agriculture; county government; and several local landowners. Members of this group have been working on noxious weed issues for the last ten years in varying degrees and have the knowledge and experience necessary to address these issues. They are known for their expertise, and are regularly called upon by local, state and national non-profits for information.

Our group developed a clear list of priorities and action items related to the identification, mapping and integrated management of noxious weeds in our five county area. At a follow-up meeting in April 2009, we formed smaller teams that developed specific action plans. The action plans take the larger objectives found in the strategic plan and break them down into steps, or tasks, which identify specific items to be accomplished, task leaders, and timelines for addressing the identified priorities. Stakeholder priorities, meeting proceedings, grant reports, action plans and participant lists can be found on our web page on the Arizona Pest Management Center website (http://cals.arizona.edu/apmc/noxious_weeds.html). In addition, a listserv and “social network” were developed to aid in communication among the stakeholders. Google Docs is being used to work on some collaborative documents. Sub-groups continue to work on identified “action plans” such as a joint internet based mapping program, survey work along the state line and consultation with regard to management by species with those with the most experience. For example, African rue was found in Cochise County this summer and is the first documented infestation in Arizona. New Mexico has been dealing with African rue for many years. Several people in New Mexico met with people in Arizona to assess the infestation and advise the Arizonan’s on a course of action for control.

The joint work that we started last year has yielded immediate benefits to noxious weed programs in both states. We are currently planning a joint educational program along the state line for this fall, with speakers from both states and inviting the public from both states. We also work at developing various options for integrated weed management by conducting trials with low risk herbicides, biological, cultural, and mechanical control methods. We look for funding opportunities for projects that we can work together on across state lines. While these efforts are important and fruitful in terms of weed management implementation, one of the major challenges we face is funding to support travel to sustain the momentum we have achieved. Through this grant we are seeking funds to support travel and logistics for two face-to-face large group meetings and two action sub-group face-to-face meetings. These face-to-face meetings are important for continued successful working relationships

This multi-state project is consistent with goals of WIPMC Work Groups of addressing information, resource and research needs related to supporting integrated

management of pests. If funded, this working group will enhance communication and collaboration across state borders, including cooperation among political entities with shared goals of addressing noxious weeds and reducing their economic and ecological consequences to growers, cattlegrowers, land managers, county and state governments, and interested publics. With a minor investment from the WIPMC, this highly leveraged collaborative effort will increase efficiency and enhance outcomes and impacts of the many stakeholder organizations involved. Our Work Group will address several priorities identified by the Western IPM Center, including development, sharing, and implementation of IPM practices for noxious weed management; research on the biology and ecology of invasive species; and outreach and demonstration activities to support noxious weed identification and management efforts throughout our region. This project also address several of the stakeholder priorities identified in the December 17 stakeholder session, including: providing education to support implementation of noxious weed management, public outreach on noxious weed identification and treatment, enhancing cooperation among entities in both states responsible for noxious weed management and regulation, multi-state collaboration on noxious weed management, and facilitating rapid responses to noxious weed management issues.

While this project is relatively local in scope, comprising 5 counties in 2 states that encompass approximately 13 million acres, this is the most appropriate scale at which communication, research, collaboration, and implementation of noxious weed control efforts should be implemented. While general noxious, invasive weed education and outreach efforts can be coordinated at a much larger scale, more focused educational programs that lead to on-the-ground implementation requires that there be a much more local focus. These five counties are extremely rural and traditional in their clientele. Personal relationships between all parties are very important. There is also a long history of these five counties being tied together culturally – the state line is not a boundary to residents, but has been when it comes to political boundaries. However, in our collaborations to date, the agencies and entities involved are already treading new ground, developing interagency agreements and both formal and informal methods and procedures for collaborating and sharing of information that could serve as a model for other interstate interaction to control noxious and invasive weeds throughout the west.

Objectives

This proposal seeks to provide the means to continue the collaborative work started last year with the Special Issues funding.

1. We will hold a research/education field tour.
2. We will hold an annual stakeholder meeting including key personnel and agency representatives from both states, to share research updates, progress on action plans and weed management implementation efforts.
3. Two action plan sub-group meetings will be held to work on specific tasks.

4. We will continue our online communication, including the listserv, Google Docs, social network, and the nascent work group website hosted by the Arizona Pest Management Center. (Funds other than requested in this proposal will be used to accomplish this objective.)

Procedures

1. Research/education/demonstration field tour, proposed for Spring, 2010 (time of year when majority of noxious weeds in our area are in bloom). The purpose for the field tour is for stakeholders to learn about the biology of species of concern and see research and management results in the field. One of the action items identified is to develop local rapid response teams in communities throughout the five counties. Rapid response teams would be able to properly identify noxious weeds, instruct the landowner on treatment options, or if the infestation is only one to several plants, take care of the infestation immediately. In order to do this, we must provide opportunities for stakeholders and other interested public to identify real plants, not just mounts or photos. For instance, a member of the SEAZWMA attended a noxious weed workshop put on by the SWNMCWMA in the fall of 2008. Part of that workshop was a field tour to an African rue infestation. When the report of African rue came in for Cochise County earlier this year, that member was able to make a field inspection and positively confirm that it was African rue without sending a specimen to the herbarium or state noxious weed specialist. It is also important that we provide outreach opportunities for stakeholders to learn from new research and demonstrations in the field.

2. Annual Stakeholder Meeting, proposed for December, 2010. Evaluations of the first stakeholder meeting that was held showed that participants wanted to make this an annual event. Participants were energized by the planning process and in meeting new people from across the state line that are willing and anxious to work together. The key reasons for meeting will be to review our priority species of concern, to provide research and weed management implementation updates to the group (including progress on Action Plans and other joint work), and to revisit the strategic and action plans (and revise as needed). This regular meeting will help keep members of the group engaged in the process of noxious weed management and will reduce duplication of effort across state and county lines through sharing of information. Meeting notes, research updates, presentations, etc. will be posted to the website.

3. Two action sub-group meetings. While much of the work of the group during the year can be done via phone, email, google docs, etc., some work entails people getting together face-to-face. These small group meetings will focus on specific tasks to keep momentum going between the yearly stakeholder meetings. They will address the two highest priority items identified at the previous December stakeholder meeting. These subgroups will meet in working sessions to specifically move forward on achieving those identified objectives. (One is scheduled for December, 2009. Funds other than requested in this proposal will be used to hold the December 2009 meeting.)

4. Continue ongoing electronic communication. We will sustain electronic communication throughout the grant period, continuing the email listserv, using Google Docs to share and revise documents, and posting meeting notes, priorities, action plans and progress reports on the Arizona Pest Management Center website (http://cals.arizona.edu/apmc/noxious_weeds.html).

Outcomes and Potential Impacts

Short-term Outcomes

- Project partners will continue to refine planning for noxious weed management.
- Stakeholders will be aware of the current status of noxious weed management in our area of Arizona and New Mexico.
- Stakeholders will be able to positively identify a larger number of noxious weeds.
- Stakeholders will increase their knowledge in species biology and the efficacy of treatment methods.
- Two action plan items, identified as priorities by the group, will be completed.
- Stakeholder relations will be strengthened by face-to-face meetings and the field tour.

Longer-term Outcomes and Impacts

Through the research, communication, outreach and implementation of integrated control for noxious weeds coordinated through this work group, we expect to impact local community awareness of noxious weeds and local control efforts. This will aid in early detection and rapid response to noxious weed management, which will reduce the overall cost and ecological damage from noxious weeds through implementation of timely control efforts. In the long run we will impact biodiversity and ecological stability as well as saving money for growers, ranchers, and other land managers through preventative management.

Evaluation Plans

- We will document the number of participants and their affiliation in each of the meetings described above.
- We will conduct a survey at the annual meeting to measure increase in knowledge, awareness, and weed identification.
- We will conduct a survey to measure knowledge gained and weed identification at the research/education tour.
- We will document all meetings, identified priorities, progress on Action Plans and other activities on the APMC Work Group website.

Probable Duration

One year, March 1, 2010 to February 28, 2011.

Cooperation of Key Personnel and Institutional Units Involved

Kim McReynolds (UA, Area Extension Agent, Cochise, Graham and Greenlee Counties) is the PI for this Work Group proposal. Kim has chaired/co-chaired the Southeastern Arizona Weed Management Area since its formation in 1998. A significant amount of Kim's extension program is spent on noxious, invasive weeds, which includes developing and teaching at workshops, field tours and working with Extension Specialists on research trials for several noxious weed species in southeastern Arizona. Kim manages the AZ-NM weeds listserv and developed the social network and google docs set up for the group.

Christy Rubio (NMSU, Extension Agent, Hidalgo County) is the Co-PI for the Work Group proposal. She is a leader in noxious weed management in southwestern New Mexico and was instrumental in the formation of their cooperative weed management area in 2007. She organizes and teaches at local workshops and field days. Christy provides direction when needed to their WMA coordinator.

Dr. Al Fournier (Program Manager, Integrated Pest Management, Maricopa Agricultural Center) will manage the work group webpage on the Arizona Pest Management Center website. He has been instrumental in development of the web page and addition of content. McReynolds and Rubio will provide documents to Dr. Fournier for inclusion on the site as developed. Dr. Fournier also co-facilitated the December 2008 Stakeholder meeting.