

Annual Report for the Noxious, Invasive Plant Signature Program Team (SPT) – 2011/12

Principal Contact: Larry Howery, Professor and Rangeland Extension Specialist, 325 Bio Sciences East Bldg., The University of Arizona, Tucson, AZ 85721. lhowery@ag.arizona.edu

Signature Program Area(s): Water, Plants, and Natural Resources; Animal Production Systems; Food and Fiber Production Systems

County affiliates:

- Cochise, Graham & Greenlee - Kim McReynolds, Area Agent, Natural Resources
- Gila – Chris Jones, Associate Agent, ANR
- Maricopa – Kai Umeda, ANR/Turf Area Agent
- Mohave - Rob Grumbles, Agent, ANR & County Director
- Navajo Nation - Gerald Moore, Agent, ANR & Youth Development
- Yavapai - Jeff Schalau, Associate Agent, ANR & County Director

On-campus or Experiment Station affiliate(s):

- Campus – Kevin Fitzsimmons, Specialist, Professor & Research Scientist, SWES; Larry Howery, Specialist, Professor, Rangeland and Forest Resources Program, SNRE; Barron Orr, Associate Specialist, Geospatial Technology, OALS/SNRE; Bill McCloskey, Associate Specialist, PLS
- Maricopa Agricultural Center - Al Fournier, IPM Program Manager

Collaborators:

- CWMA's in at least 3 of the above counties/areas (e.g., Cochise, Maricopa, Yavapai), as well as others identified in this report

Summary of Work Conducted during 2010/11

An in-service workshop was held in the Maricopa Cooperative Extension office on March 29, 2012. Each SPT member shared what has been accomplished in their area of the state towards the original goals and objectives of this SPT's strategic plan and logic model which can be found [here](#). Minutes from our 3/29/12 meeting can be found [here](#). Following is a summary of 5 major objectives, accomplishments, and future plans discussed during the 3/29/12 meeting:

1) Brainstorm potential fact sheets and publications to be developed, peer-reviewed, and published. Develop Facebook page. The following topics for facts sheets were discussed along with corresponding authorship. A facebook page was also created.

- Cut stump treatments (**Lead person: Jeff Schalau**). *Published*. <http://cals.arizona.edu/pubs/garden/az1401.pdf>
- Developed a Facebook Page for this SPT (**Lead person: Kai Umeda**) <http://www.facebook.com/UaceNoxiousInvasiveWeeds>
- Building capacity to manage noxious and invasive weeds in the Southwestern United States. *Published*. Anna Masayeva, Larry Howery, and Patricia Orr. *Rangelands* April 2012 Issue: 37-41.
- Russian knapweed (**Lead persons: Kim McReynolds and Bill McCloskey**). *In progress*.
- Sweet resinbush (**Lead person: Kim McReynolds**). *In progress*.

2) Hold training and testing sessions specifically designed to certify local citizens and agency personnel to use restricted use chemicals to control noxious and invasive species (Lead persons: Ed Northam, Jeff Schalau, Kai Umeda, Al Fournier, Rob Grumbles, Bill McCloskey, Kim McReynolds, Gerald Moore, and Tom Degomez).

- Through the *Pesticide Safety Education Program (PSEP)*, we have greatly increased our collaboration with counterparts at the state lead agency, the Arizona Department of Agriculture (ADA). Due to funding and staff limitations, ADA had focused their training efforts in recent years in the population centers of Arizona. More remote regions such as the Northern Strip (N. of the Grand Canyon), National Forests and some of our Indian Reservations have been historically underserved by this program. In collaboration with ADA, as part of our strategic plan, our faculty have initiated certification and recertification trainings these past three years to target these underserved populations. Our program now dovetails nicely with ADA's training efforts and allows us to better meet the pesticide safety education needs throughout the state. Participants have included many tribal members (e.g., Navajo Nation, Hopi Tribe and Salt River Pima-Maricopa Indian Community), local, state and federal agency clientele (e.g., U.S. Bureau of Indian Affairs, Arizona Game and Fish Department, U.S. National Park Service, and U.S. Natural Resources Conservation Service, U.S. Forest Service), environmental consultants, and private and commercial pest control companies. We have adopted the National CORE certification exam and have seen initial certification rates as high as 78% of those testing. Program evaluations have indicated an average 61% increase in knowledge as a result of workshop trainings with as many as 98% of participants indicating they would implement information presented as part of their daily professional practices.
- *Pesticide Safety Education Program (PSEP) trainings were held in Mohave, Cochise, La Paz, the Navajo Nation, and other locations.* In 2011, 153 private applicators and 10 commercial applicators received initial training and certification, many of them in remote areas of the state. In addition, 29 private applicators and 272 commercial applicators received CEUs to maintain their licenses. Lastly, 240 non-certified persons received training through the PSEP program.

3) Invasive aquatic weed control in Arizona/ Lower Colorado River Basin Aquatic Invasive Species Task Force (Lead person: Kevin Fitzsimmons)

- The Aquatic Invasive Species Plan was signed by Governor Brewer and approved by the USF&W Service. This accomplishment makes Arizona eligible for Aquatic Nuisance Species (ANS) funds.
- Updated Task Force and ANS Websites
- Organized and chaired two Task Force meetings in Blythe and Yuma
- Conduct additional studies and collaborate with Task Force members on control efforts of *Salvinia molesta*, *Arundo donax*, parrotfeather, and quagga mussel. Collaborated with grad student to conduct research on quagga mussel genetics.
- Obtained \$5000 from USFWS to fund these efforts
- Answered e-mail enquiries regarding aquatic weed control and from commercial aquatic herbicide vendors to discuss products
- Taught a 1-unit course on control of Aquatic Nuisance Species as part of an Aquatic Plants and the Environment Course (SWES, ECOL, WFSC 474/574) in the fall semester (22 students).

4) On- and off-campus workshops and courses on terrestrial invasive weed identification and integrated weed management (Lead persons: Larry Howery, Rob Grumbles)

- Conducted 18th Annual Southwestern Noxious, Invasive Plant Short Course in Farmington, NM (3-day short course, 62 participants), July 2011.
- Arizona Strip Weed Field Day, May 2012.
- Developed and taught a 3-unit intensive 5-week summer session course, entitled, "RNR/PLS 400, Noxious, Invasive Plants of Arizona" (6 students) – 2nd online course developed by the School of Natural Resources and the Environment (SNRE), June-July 2012.

5) Plans for 2012/13

Objective 1 -- Educational resources, course offerings, funding

Scheduled Trainings/Workshops/Short Courses

- July/August 2012 – Conduct a PSEP training workshop for multi-family housing. (**Lead person: Dawn Gouge**).
- July/August 2012 -- 19th Annual Southwestern Noxious, Invasive Plant Short Course in Farmington, NM (3-day short course) (**Lead person: Larry Howery**)
- August 2012 -- Mohave County (AZ Strip, St. George, UT, for AZ Strip, Mohave, Coconino and southern Utah clientele) (**Lead person: Rob Grumbles**).
- August 2012 -- Conduct landscape professionals pesticide safety and use seminar in Laughlin/Bullhead City. (**Lead person: Rob Grumbles**).
- August 2012 (Navajo Nation Ag Days, Tsaile) – Conduct pest management training workshop for tribal and agency personnel in northeast AZ. (**Lead persons: Gerald Moore, Jeff Schalau, Dawn Gouge**).
- January/February 2013 – Conduct three (3), 1-day PSEP workshops with ADA to educate and train pesticide applicators for initial licensing exams. (**Lead persons: Kim McReynolds** – SE AZ; **Jeff Schalau** – northern AZ; and **Kai Umeda** -- central AZ).
- June/July 2013 -- “RNR/PLS 400, Noxious, Invasive Plants of Arizona” – 3-unit intensive 5-week summer session course to be offered Summer Session I (2013) (**Lead person: Larry Howery**)

Other Educational/Funding Efforts

- Herbicide Spray Table will be on display at the Desert Horticulture Conference in 2012 (**Lead person: Bill McCloskey**)
- Develop a framework to deliver noxious weed material and education to horticulture audiences -- pursue this idea with Ursula? (**Lead person: Jeff Schalau**)
- Develop new educational and weed mapping resources (e.g., GeoKnect app for smart phones; Fact sheet on other mobile apps supporting citizens science) (**Lead persons: Barron Orr, Bill McCloskey, Kai Umeda**)
- Look for Funding Opportunities (**Lead persons: Bill McCloskey, Larry Howery, Al Fournier**)
- Keep Task Force and ANS Websites updated (**Lead person: David Walker**)
- Continue control efforts of aquatic invasive plants (**Lead person: David Walker**)
- Answer e-mail enquiries regarding aquatic weed control and from commercial aquatic herbicide vendors to discuss products (**Lead person: David Walker**)

Objective 2 -- Publications

- Camelthorn update and revision, needs to have treatment options added (**Lead person: Bill McCloskey**)
- Thistle complex – bull, Scotch, Canada, musk (**Lead persons: Jeff Schalau and Bill McCloskey**)
- Yellow and Malta starthistles (**Lead persons: Kim McReynolds and Bill McCloskey**)

This Annual Report was submitted by Larry Howery on behalf of the Noxious, Invasive Plant SPT on July 13, 2012.