

Range War on Weeds:

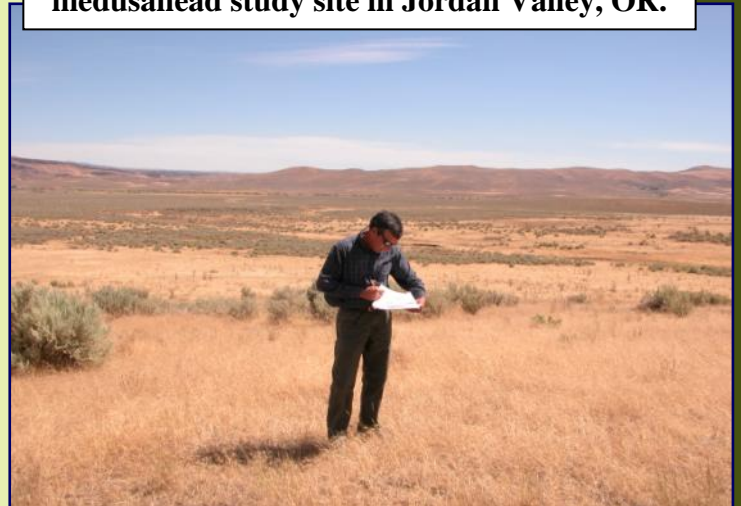
EBIPM Uses Two-Pronged Approach Against Invasive Grasses

B. Marie Jarreau-Danner



Photo courtesy of USDA-ARS Burns, OR. – **Jordan Valley, OR rancher evaluating medusahead infestation. Don't let the lush green fool you, this annual grass dries down and creates high fuel loads for wildfires.**

Picture courtesy of USDA-ARS Burns, OR – **Rangeland scientist Ed Vasquez evaluating a medusahead study site in Jordan Valley, OR.**



This article is the second in a series of articles to educate the public on the issue of destructive invasive grasses (cheatgrass and medusahead) that continue to negatively alter the ecological landscape of the Inter-Mountain West's Great Basin and the effort of the EOARC to launch an innovative project to combat that

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By B. Marie Jarreau-Danner

Fending off invading grasses that threaten rangelands and even distant communities is a complicated effort that rivals even rocket science when it comes to finding a formula that works.

Land managers have been plagued by the invasion of aggressive ‘weeds’ for a very long time and have consistently been on the losing side of the battle. An innovative project has been launched, spearheaded by folks based at the Eastern Oregon Agricultural Research Center (EOARC) - Burns, that seeks to address the issue much more proactively than has been done in the past.

“Most weed management attempts look at a weed and address ‘how to get rid of it’ with little regard for why the weed infestation might be there to begin with; or without examining all the options to reduce the infestation,” Roger Sheley says. Sheley (EOARC) is principal investigator for the project and is assisted in that effort by a team of

EOARC folks, land managers, land users and others who recognize the seriousness of the issue.

Dual Tactics Will Serve the Strategy

In the past, many attempts and large sums of money have focused on treating the symptoms of the problem rather than taking a more careful look at the underlying cause of negative changes in the rangeland plant environments. The Ecologically-Based Invasive Plant Management (EBIPM) strategy will work to change land management practices that tend to favor infestations of undesirable vegetation.

The new strategy has a two-pronged approach:

First - to find out everything that is already known about invasive annual grasses - primarily cheatgrass and medusahead - and work to enhance that knowledge base.

Second - to alter the way land managers and land users think about how the ecosystems are maintained so their resources are applied to prevention rather than treatment of an invasion of these ‘bad-grasses’.

An extensive, collaborative program serving as both research and demonstration efforts set up across the Great Basin and encompassing five state regions helps to fill-in the



Ecologist Roger Sheley explains the EBIPM model with a focus on getting to the cause of the weed invasion rather than merely covering up the symptoms year after year.



Healthy rangeland with diversity of annual and perennial plants and shrubs are much more likely to resist the invasion of invasive plants such as cheatgrass and medusahead.

information not already understood about the annual grasses.

Education programs and other management materials are constantly under development on a watershed-wide basis to identify potential invasions of particular species. Land areas that could be threatened are identified and awareness programs are implemented to keep them free of invasive species.

Native communities of diverse perennial plants that nurture and maintain a healthy ecological landscape must be restored. This can only be done under a proactive strategy, not by allowing land managers to be stuck with the same processes that have continued to produce only stronger stands of destructive annual grasses. EBIPM will provide those managers with a broad array of tools and support to get positive results for effective land management.

“This approach (EBIPM) has a much higher potential for success and is a much better use of resources than repeated, traditional weed management,” Sheley said.

EBIPM Focuses on the Grass’ Roots

The general idea is that when land management practices that favor invasive grasses don’t change, the species evolves to fend off traditional efforts to control its spread and strengthens its grip on that landscape – multiplying to its biological potential. This results in a large-scale waste of valuable land-management resources. The EBIPM model addresses the root causes of invasive grasses and includes tools and management practices on a site-specific basis to prevent such an invasion.

Using the strategy of the EBIPM model throughout the Great Basin is a fresh, holistic approach to address the issue of invasive annual grasses on the rangelands. However, throughout the

basin, the landscape will be treated for the needs of each specific site rather than applying a blanket prescription.

Managers no longer 'react' to the problem but work to understand the cause and to design science-based management practices that favor desired plant communities and contribute to the continued health and vitality of functioning rangelands.

Through an all-encompassing education campaign, proponents of the project expect to gain widespread adoption of the EBIPM model across the Great Basin landscape. This, they hope, will lead to a significant reduction in the

amount of rangeland being hijacked by encroaching, destructive grasses.

"We hope to see differences in the work we are doing by fall of 2009," Sheley said. He added that this is only the start of the project and that it may be three years down the road before it really begins to gain ground among land managers on a wide scale. Even with that, however, the program offers hope for continued and consistent success as more people recognize the positive change on the landscape and adopt the new strategy.

Demonstration projects were initiated in Jordan Valley, Oregon; Boise, Idaho; Park Valley, Utah and Smoke Creek,



The Great Basin area of the west (outlined above in white) includes most of Nevada, almost half of Utah and much of Idaho, Oregon and California.

Smoke Creek, California



Jordan Valley, Oregon



Boise, Idaho



Rock Creek, Nevada



Park Valley, Utah



California near Susanville in the later part of 2008. Spring projects began in those watersheds in 2009 and in Northern Nevada.

“The funding for the program is for five-years, until 2012, with expectations that programs and materials developed will sustain the effort and continue to expand across the Great Basin indefinitely,” Sheley said.

Managing Invasive Weeds is Not “Rocket Science”

One of the strongest points of EBIPM is that it accounts for the diversity in landscapes and different land management objectives, but there are challenges that must be addressed. Sheley said that as research is conducted over large areas like the Great Basin landscape it may often be difficult to get similar responses to treatment.

Another difficult issue is ensuring that people understand the severity of the issue and how it can negatively affect their world - whether or not they use, manage, visit, own or ever look upon rangelands. Reseeding efforts on infested and degraded landscapes will also be an obstacle to be addressed.

Many Partners On the EBIPM Team

Participants from five states will be on the front line of the new strategy for the war on invasive weeds. **Eastern Oregon Agricultural Research Center (EOARC)** in Burns is home base for the project. Ecologist **Roger Sheley**, is lead investigator, **Ed Vasquez** is the coordinator for the demonstration and assessment research and for efforts in Jordan Valley. **Brenda Smith** serves as outreach coordinator responsible for the education



The Area-Wide Project, based at the Eastern Oregon Agricultural Research Center in Burns (1), Oregon, includes demonstration areas and projects in Jordan Valley (2), Oregon, Boise (3), Idaho, Smoke Creek (4), California, Park Valley (5) and Logan (6), Utah and Elko (7) and Reno (8), Nevada.

and products that will be developed for the project. **Jeremy James, Tony Svejcar, Chad Boyd** and **Kirk Davies** have projects initiated for the effort. All are EOARC personnel.

Others to participate include **Stuart Hardegree**, USDA-ARS Boise, plant physiologist; **Tom Monaco**, USDA-ARS ecologist, partnered with Utah State University researchers, extension specialists and rancher cooperators in Park Valley, Utah to implement that project. **Lesley Morris**, ecologist historian working with Monaco brings a unique understanding of past land management practices and how they can influence the EBIPM program.

Vasquez and Smith will work with Jordan Valley Coordinated Weed Management Association, their coordinator **Eric Morrison** and OSU ex-

tension specialist **Anna-Marie Chamberlain** to implement the demonstration programs and another important component of the program – Weed Prevention Areas in that watershed.

Kim Rollins and **Michael Taylor**, University of Nevada, Reno (UNR) agricultural economists will be involved in development of an analysis of the EBIPM. **Earl Creech** and **Kent McAdoo**, UNR, will initiate the demonstration in a watershed in Northern Nevada. **Joe DiTomaso, Rob Wilson** and **Mark Weltz**, have initiated demonstration plots in the Smoke Creek watershed in Northeast California.

Other collaborators include the Bureau of Land Management, University of Idaho, Oregon State University, Idaho Department of Agricultural and other ranchers and land managers.

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For more on EBIPM and the Area-Wide Project, please visit EBIPM.org. The website includes more in-depth information on the project and up-to-date progress as well as many of the resources for landowners, land users and managers mentioned in this article.

