



# Powerful app assists invasive species ID, triggers quick **MANAGEMENT**

*Dan Tekiela*

**W**hen would you want to take action to manage a spreading forest fire? When the fire has spread to hundreds or even thousands of acres? Of course not.

Alternatively, when would you want to manage a weedy/invasive plant problem? When your land is completely covered with something like Canada thistle before doing anything?

Just like fire – of course not. Yet, these two situations are treated very differently.

Most forest fires are responded to when still smaller than a tenth of an acre and very manageable. Not so with plant invasion responses. An equal number are initially managed at a tenth of an acre as those managed at greater than 1,000 acres.

In general, weed invasions over 2 acres in size have less than a 50 percent chance of being eradicated. This is why Early Detection Rapid Response (EDRR) is critical to protecting wild landscapes.

## **Early Detection**

EDRR depends on the rapid identification of newly established invasive plant populations followed by almost immediate management.

Fortunately, most of us have technology in our pockets that can be utilized to mark new populations. Early Detection & Distribution Mapping System (EDDMapS West, [www.edd-maps.org/west/](http://www.edd-maps.org/west/)) is a national database of invasive species distribution/range maps. Crowdsourcing is used instead of depending on experts to build these maps.

Free EDDMapS apps are available for Android and Apple devices. Upon opening, users can select the species they have identified from a list of invasive species and can then include details about the invasion such as pictures, abundance, and habitat type. Your phone then automatically uses its internal GPS system to mark the specific location to make finding the plant again easier. It is important to be familiar with property rights/ownership boundaries before submitting

*Medusahead,  
an invasive  
grass*



*Volunteers look for medusahead in a heavy Ventenata invasion*

a point to ensure you are not submitting information about someone else's private land.

This system is being used successfully for many species throughout Wyoming. For example, dalmatian toadflax, a harmful and spreading invasive plant, has nearly 60,000 separate reportings!

### **Rapid Response**

EDRR only works if rapid response attempts to eradicate these populations. How can rapid response be ensured? Certainly an email or phone call to your local weed and pest district or UW Extension educator may alert experts to the presence of a new invasion; however, an easy and convenient alternative exists – again EDDMapS.

For Wyoming, specialists at UW and Wyoming Department of Agriculture are informed of the new sightings to 1) confirm correct

identifications, and 2) rapidly respond to the new identification. Not only does this ensure higher quality data for EDDMapS, it also means new populations won't be ignored, and management efforts will occur.

Utilizing EDDMapS requires basic plant identification skills. Resources such as the Wyoming Weed Watchlist, free online or for a small fee in print, lists many species that are rare or are currently not present in Wyoming and describe their basic identification characteristics. The "Wyoming Noxious Weed Handbook" is at [bit.ly/wyoweedhandbook](http://bit.ly/wyoweedhandbook). Many weed and pest offices have them and give them out free upon request.

Alternatively, there are UW Extension educators and weed and pest district personnel across the state who are plant experts and can assist in plant identification. Just remember not to drop any seed or plant

parts if moving a plant for identification purposes to reduce the chance of spreading.

### **Two Recent EDRR Species**

Two new invasive winter annual grasses (similar to cheatgrass) were recently detected in north-central Wyoming. Ventenata and medusahead have been shown to have numerous negative effects in areas they have invaded, such as reducing native plant abundance, forage quality, and wildlife habitat quality in other western states. Both species were detected early, and the county weed and pest district was informed. Because there was an early and quick response to this new invasion, all important stakeholders have been involved early to develop a long-term management plan. Local eradication is a feasible goal for these species because of the successful use of EDRR.

## Prevention

One way to reduce having to implement EDRR is to not introduce new species to an area in the first place. Humans are responsible for moving many invasive plant species around the world. Vehicle travel can easily move invasive seeds and propagules tens or hundreds of miles, and foot traffic can move species just as far in the right conditions.

PlayCleanGo is Wyoming's state campaign to educate the public, especially outdoor enthusiasts, that they can act as good land stewards by ensuring they clean their equipment and themselves before leaving any outdoor location. Because human activity is often the cause of new spreading invaders, cleaning tires, equipment, and boots, can greatly reduce chances of invasive species spreading.

Unfortunately, even if everyone takes prevention seriously, seeds will still be spread by animals, wind, water, and countless other pathways. No matter how careful we are, new invasive plant species will be spread and the need for EDRR will remain. But by utilizing EDRR principles, we can reduce establishment and spread of new and harmful invasive species across Wyoming and protect our wild and beautiful state.

## New online tool available to purchase weed-free forage, gravel products in Wyoming!

*Julie Kraft*

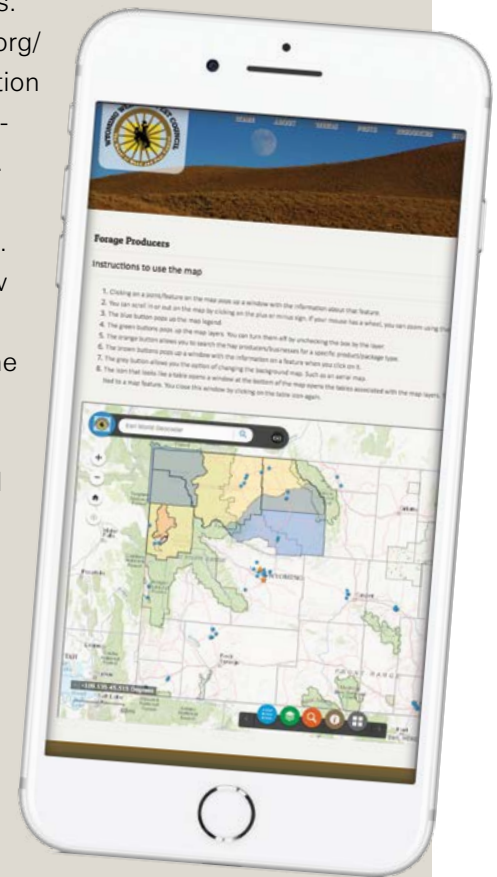
Using weed-free forage and gravel are important invasive species prevention tools. In response to many requests on where to purchase weed-free forage and gravel, the Wyoming Weed and Pest Council has developed an online map to help the public locate producers.

Weed-free products can be used to prevent introduction of noxious weed seeds into an area (examples are hay mulch for reclamation, hay to feed horses, and stock in weed-free areas or in the backcountry on public lands, and gravel for road maintenance or building). Use of certified hay is required on federal lands and within several Wyoming county limits. Even when not required, a good best management practice is to use certified weed-free products.

The map is at <http://www.wyoweed.org/forageproducers>. Users can see the location of producers and businesses selling certified weed-free products across the state. The product and contact information is shown with a click of a mouse on a point. Scroll in, out, and pan on the map to view different areas either using the mouse wheel or the option buttons. Following the instructions on the page, you can turn on and off the different product layers and bring up and search the table showing all the information.

Information on the map is collected, with permission granted by each producer, by your county weed and pest districts when they certify fields and pits.

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*We're not suggesting **Dan Tekiela** is the invasive plant equivalent of Smokey Bear but just like Smokey doesn't like those untended campfires, Tekiela doesn't like untended invasive weeds. He is the University of Wyoming Extension weed specialist and can be reached at (307) 766-3113 or [dtekiela@uwyo.edu](mailto:dtekiela@uwyo.edu).*