Abstracts for Idaho Noxious Weed Conference
January 17-18, 2018
The Riverside Hotel
Boise, ID

Wednesday, January 17, 2018

General Session – Tamarack/ Ponderosa (8:00 AM – 4:45 PM)

8:15 -8:45 AM
Brad Little (Lieutenant Governor, State of Idaho)

8:45 – 9:15 AM Idaho State Department of Agriculture Update
Jeremey Varley (Section Manager, Idaho State Department of Agriculture)
We will take a quick look at the new staff and their roles at ISDA for Noxious Weeds and Invasive species. An update will be given on the 2018 cost share program and a quick review of programs that happened in 2017 and plans for 2018.

9:15 – 10:15 AM Annual Grass Control with Herbicides
Corey Ransom (Associate Professor, Utah State University)

Invasive winter annual grasses, including downy brome and medusahead, continue to invade rangeland across the western US. These invaders displace native vegetation, reduce available forage, increase fire cycle frequency, and often appear to facilitate invasions by other species. Multiple approaches to annual grass management have been evaluated over the last decade including combinations of mechanical controls, re-seeding, sequential treatments, and residual herbicide treatments. Herbicide efficacy is often linked with proper timings in relation to annual grass growth stage and research has improved control by identifying the best herbicides, rates, and application timings. New, long lasting herbicides may provide enough residual control to deplete the soil-seed bank, slowing re-invasion by annual grasses. It has become apparent over time that long-term control of annual grasses requires an integrated approach and is highly dependent on the establishment of desirable vegetation to capture available resources on a given site. Efforts are ongoing to identify improved, effective, and economical annual grass management strategies.

10:15– 10:45 AM BREAK

10:45 – 11:45 AM Integrated Management of Rangeland Invasive Plants – A Research Sampler from Montana
Jane Mangold (Associate Professor, Extension Invasive Plant Specialist, Montana State University)
Multiple invasive plants are threatening western range and wild lands. At the same time, multiple tools are available for managing these species. Research, guided by managers' input,

can help to find ecologically and economically suitable answers to invasive plant management needs. This presentation will cover some research projects in Montana that explore how chemical, biological, and cultural control methods might address problematic species like cheatgrass, spotted knapweed, leafy spurge, Canada thistle, field bindweed, and hoary alyssum.

1:45 – 2:45 PM Idaho's 2017 Governor Proclamation on Pollinators Leads to the Birth of New Partnerships – an Example from Idaho's Forests and Grasslands

Francis Kilkeeny (Research Biologist, USDA Forest Service Intermountain Region)

The Governor's proclamation on pollinators has helped to focus attention on the need to preserve pollinator habitat and other natural resources that support Idaho's rural economy. Since the proclamation, there has been a birth of several important partnerships that will help to preserve viable pollinator populations into the future. This talk will focus on a set of linked partnerships between federal and state agencies, and NGOs to collect seed from pollinator and wildlife-friendly forb species to develop for use in post-fire restoration. In addition to supporting pollinators and other wildlife, the use of native forbs in post-fire restoration helps to keep invasive weeds at bay, helps to return the land to productivity for ranching and other mixed-use activities, and supports a local native seed economy. Partnerships of this type can show the way forward in preserving our lands and rural way of life.

3:15-4:45 PM Panel: Tools for Land Managers

April Hulet (Extention Range Specialist, University of Idaho);
Cathy Ford (Roadside Programs Manager, Idaho Transportation Department);
Steven Paulsen (General Manager / CEO, Living Earth, LLC)

April Hulet (Extension Range Specialist, University of Idaho)

The sagebrush biome, specifically low to mid-elevation Wyoming big sagebrush plants communities are declining at an alarming rate as large wildfires and other disturbances remove native vegetation. Post-fire efforts to reestablish native plant communities generally fail, despite massive capital investment. Pre-emergent herbicides are often an effective control of exotic annual grass, however, species seeded simultaneously with these herbicides will likely experience non-target damage. Thus, seeding often occurs 1 year later to reduce herbicide effects to seeded vegetation, but by this time annual grasses may already be reinvading and limiting revegetation success. Our research also focusing on evaluating the utility of herbicide protection pods that allow desired species to be seeded simultaneously with imazapic applications. This will allow seeded species a longer window to become established before experiencing pressure from exotic annuals, and enable a single-entry approach compared with multiple entries currently employed to revegetate annual grass invaded rangelands.

Cathy Ford (Roadside Programs Manager, Idaho Transportation Dept.)

ITD implements a comprehensive and integrated vegetation management program that assures water quality, improves erosion and sediment control, reduces roadside maintenance, enhances natural beauty, manages noxious weeds, and protects natural habitats. Some of these techniques and equipment include selective herbicide applications, promoting native or adaptable vegetation, reseeding disturbed areas, applying bio-control agents and delivery systems, better and more efficient equipment cleaners, improved seeding equipment (for steep slopes), GPS mapping of invasive population inventories, and methods to minimize soil disturbance during vegetation management activities.

Steven Paulsen (General Manager / CEO, Living Earth, LLC)

Large scale or landscape level land management has many challenges. There will be a focus on how informed actions promote effective and efficient applications. I will elaborate on the differences between Maintenance concepts (literally the act of "attempting" to keeping a landscape in stasis) and how that differs from a Stewardship concept (literally the act of promoting a landscape) as it pertains specifically to weed management and wild land restoration efforts with native plants. All this wrapped around the importance of applied "infield" actions informed by monitoring efforts. This presentation will include all forms of an Integrated Management System: Chemical, Biological, Mechanical, and Cultural. Tools are only as good as the operator, at the end of the day monitoring to inform action is paramount to avoiding failure.

Thursday, January 18, 2018

(Concurrent classes will take place with the Industry Track;
Bio-Control/Inventory and Monitoring Technique Track; IPM Track)

Industry Track

8:00-9:00 AM **Raven Industries Latest and Greatest New Technology (1/2 hour presentation)**

Randy Stanczak (Territory Account Manager, Raven Industries)

Reading and Understanding Herbicide Labels (1/2 hour presentation)

Jim Bean (Strategic Accounts Manager, BASF)

Randy Stanczak (Territory Account Manager, Raven Industries)

Randy is here to update you on the new and current products that Raven has to offer. Raven has a solution for agricultural, roadside, off-road, turf, and also winter maintenance applications that utilizes GPS technology to create application maps, do single or multiple variable rate applications, and have automatic shut-off abilities in already applied areas. He will be discussing injection and pulse width nozzle application technology.

Jim Bean (Territory Account Manager, BASF)

Pesticide labels contain detailed information on how to use the product correctly and legally. Labels also contain information on potential hazards associated with the product and instructions you should follow in the event of a poisoning or spill. Following label instructions will allow you to minimize the risks and maximize the benefits. This presentation will review the important parts of herbicide labels, where the information is located and what it means. We will discuss signal words, precautionary statements, first aid, PPE, environmental hazards, directions for use, storage and disposal.

9:05-10:05 AM **DRONE Panel**

Desiree Keeney (Field Operations Manager, Ada County Weed Control)
Bill Toothill (Director, Technology Services Group, DBI)
Michael Clancy (Owner, Ecopoint)

Desireé Keeney (Field Operations Manager, Ada County Weed Control)
This talk will be a panel discussion with multiple participants on drones as a tool. My portion of the panel will focus on Ada County Noxious Weed Control using drones to measure plant density and noxious weed identification through aerial high resolution imagery and infrared photography. Using real world test plots with variable herbicide applications, we took high resolution and infrared photography to determine if we can identify plant species and noxious weed density within the plots for analysis of herbicide effectiveness.

Bill Toothill (Director, Technology Services Group, DBI)
DBI Services is a worldwide leader in asset maintenance and management that includes comprehensive vegetation management on right of ways, industrial sites and large tract management. Specifically, I will focus on the use of UAV for herbicide application and species identification through the use of multispectral and near infrared sensors (NIR).

10:35-11:35 AM **Alligare Product Update & Label Changes (1/2 hour presentation)**
Fred Raish (Regional Sales Team Manager – Rocky Mountains/Great Plains, Alligare)
New IVM Products and Formulations from Nufarm (1/2 hour presentation)
John Storr (Territory Manager -Nufarm)

Fred Raish (Regional Sales Team Manager – Rocky Mountains/Great Plains, Alligare)
Presentation for the 2018 Idaho Noxious Weed Conference will cover new products that Alligare will be offering in 2018. The presentation will then discuss current Alligare product label changes: changes to PPE, signal words, resistance management language, and the addition of application sites of a herbicide for control of Medusahead rye in Idaho, Washington, and Oregon.

John Storr (Territory Manager, Nufarm)
Nufarm is introducing several new herbicides to assist those involved in vegetation management to combat broadleaf weeds and brush problems in several different market segments including Roadsides and other rights-of-way, non-irrigation ditches, Forestry as well as Range and Pasture and Aquatic sites. We will discuss the mixing ability of these new formulations and review why better formulations can provide better weed control. We will also look at using blended products with multiple sites of action and discuss the advantages of having these products work together to control resistant weed species.

1:00-2:00 PM **Esplanade® 200SC – Release of Desirable Plants in Non-crop Areas (1/2 hour presentation)**
Kent Pittard (Area Sales Manager, Bayer)
Pesticide Resistance Management – Best Practices (1/2 hour presentation)
Judd Fitzgerald (Product Manager, Helena Chemical Company)

Kent Pittard (Area Sales Manager, Bayer)

Release of desirable plants often begins with controlling invasive annual grasses like cheatgrass, medusahead and ventenata. An effective winter annual grass management approach should provide residual winter annual grass control, with the goal of depleting the soil weed seed bank and eliminating litter. Esplanade® 200 SC Herbicide is a new tool for control of invasive annual grasses and other weeds, leading to release or re-establishment of desirable plants in non-crop areas such as:

Parks and open space
Wildlife management areas
Recreational areas
Fire rehabilitation areas
Prairies
Fire breaks

Judd Fitzgerald (Product Manager, Helena Chemical Company)

We will discuss pesticide resistance, what causes it and most common herbicides we find resistance with. We will also discuss the challenges applicators confront with applications that either lead to pesticide resistance or the misidentification of poor control as resistance. Finally we will provide useful practices to mitigate pesticide resistance.

2:30–3:30 PM Ethical Consideration of All Parties Involved in a Potential Chemical Trespass Event is Essential to Maintaining a Professional Reputation

Gilbert Cook (Cook Ag Science Expertise)

Herbicides can be subject to off target movement resulting in the potential for unintended damage to non-target plants. The approach taken to identify if chemical trespass occurred and treatment of individuals involved in the alleged event are critical to a fair conclusion. Case studies will be discussed to provide examples of how to appropriately handle chemical trespass situations.

Bio-Control/Inventory and Monitoring Technique Track

8:00-9:00 AM The Invasion Curve, Weed Biological Control, and Integrated Pest Management

Carol Randall (Weed Biocontrol Specialist, Forest Service Northern and Intermountain Regions)

Land managers face a number of challenges when addressing widespread noxious/ invasive plant infestations including: assessing the extend and severity of invasive plant populations, identifying the control options available, determining which control options are viable, deciding which control methods should be applied where, and finding the resources necessary to complete and evaluate treatments.

9:05-10:05 AM Forest Service Perspectives on Integrating Biocontrol Agents

Carl Jorgensen (Entomologist, USDA Forest Service, Forest Health Protection)

Monitoring is one of the keys to successfully integrating biological control into an Integrated Pest Management program. There are many established biological control agents currently in Idaho. Knowing when, how, and where to look for specific biocontrol agents given their biology is key in being able to easily find them or the damage they have done, and possibly collecting

and moving agents locally, especially after a disturbance such as fire. When it is not the optimal time to find them, we will discuss other control methods that can be used.

10:35-11:35 AM Invasive & Noxious Weeds Issues Post-2015 Soda Fire

Cara Hastings (Ecologist, Bureau of Land Management)

The Soda Fire burned nearly 280,000 ac of federal, state, and private land in August of 2015. The fire was located in the north central Great Basin, in both southwest Idaho and southeast Oregon. The Soda Fire affected area has a history of wildfire and invasive annual grass invasion. Following the fire, treatments were planned and applied with one of the goals being reduction of risk of further invasive annual grass invasion. Herbicide was aerially applied pre-perennial grass seeding, post- perennial grass seeding and independent of perennial grass seeding to release pre-fire perennial vegetation. Perennial grass seed was applied aerially and with drills. Shrubs and forbs were also aerially seeded throughout the Soda fire. This presentation will focus on the results of monitoring of the herbicide and other treatment applications. Application rates, application timing, and variation in invasive annual grass cover will be discussed.

1:00-2:00 PM *Biological Control Update*

Mark Schwarzländer (Professor – University of Idaho)

Biological weed control agents for houndstongue have been developed overseas and stateside since 1988, for hoary cress since 1997 and for dyer's woad since 2004. Well, where are the agents? this presentation will attendants that the time has come to have the first houndstongue agent petitioned for release that there will likely be the first agent released for hoary cress and that there will be a petition for the release of the first dyer's woad insect biocontrol agent. Was it a long and rocky road? Yes. Do we believe that the petition process will go smoothly for these insects? We do. We have more insects that we intend to get through the approval process and I will specifically address how I believe that there is a real chance to get the houndstongue root weevil, which is so very successful in Canada officially approved for release in the United States.

2:30–3:30 PM Biological Control of Weed Basics

Paul Brusven (Coordinator, Nez-Perce Bio-control Center)

Biological control of weeds has been a tool used in Idaho for many years. This tool is many times overlooked as not a viable tool in combating noxious weeds, but in fact, is a long term solution when used correctly with the other tools available. This talk will provide basics to biocontrol and how it can be implemented into your weed management strategies. You will learn the timing of releasing biocontrol agents most commonly used in Idaho and considerations to ensure good establishment, such as, site selection and land uses occurring in your weed infested area. You will learn basic principles to how to integrate bio-control with the other tools available (including herbicides) to effectively and efficiently giving the weeds a disadvantage over native and desirable vegetation. This presentation will serve as a refresher to those who have used bio-control in the past, but will empower those interested in getting more involved in biocontrol and learning that biological control insects is necessary in managing weeds on large landscapes.

IPM Track

8:00-9:00 AM What's Up with the New and Not-So-New Invaders in Montana

Jane Mangold (Associate Professor, Extention Invasive Plant Specialist, Montana State University)

Idaho and Montana share many noxious weeds, but management approaches may vary between states. This presentation will discuss some new and not-so-new invaders in Montana, including basic information on identification and biology, as well as, control options and efforts to contain and, in some cases, even eradicate new invaders.

9:05-10:05 AM EDRR Efforts for Plant Invasion from Policeman's Helmet and Small Bugloss

Jeffrey Pettingill (Bonneville County Weed Superintendent, Bonneville County Weed Control)

Two noxious weeds within Bonneville County have been slated for EDRR efforts. The efforts of our CWMA partnered with Bonneville County has worked to remove both policeman's helmet and small bugloss as small acreage, new invaders. Our efforts serve as a case study on how to address EDRR efforts at a landscape level.

10:35-11:35 AM Weed Quiz & Biocontrol Quiz

Tim Prather (Professor, University of Idaho) & Mark Schwarzlander (Professor, University of Idaho)

Dr. Tim and Dr. Mark have developed a creative way to help people identify new and existing weeds, as well as, which insect is available to control them to reduce pesticide usage. Those attending the class will be given a unique quiz. Instruction will take place during this session.

1:00-2:00 PM How Do We Know If a Species is a New Invader?

Tim Prather (Professor – University of Idaho)

Additional plant species that are not native to Idaho are frequently found in the state. Most of the plants that escape our landscapes don't become a problem but 10% of those plant species do become weedy and potentially invasive. There are instances when we can decide whether to allow a species within our state or country. We have assessment tools now that allow us insight into potential for becoming weedy or invasive. Unfortunately, we often don't find a species at the stage where it is easily removed and then we have a decision to make. Is the species a potential weed or worse, an invasive species? We can use those same assessment tools to help us determine which species to prioritize for removal or control. Some assessment tools are quite involved, requiring weeks to months of data collection to obtain sufficient input into the tool. One tool, used in New Zealand, Australia and Hawaii is well researched, demonstrating correct decisions for many species. Additional tools have been created that utilize even less information to make a decision such as one created for California and Nevada. These assessment tools will be described during this presentation and a way forward suggested for us to consider using here in Idaho.

2:30–3:30 PM General Noxious Weed Update & Plant ID

Jeremey Varley (Section Manager – Noxious Weeds, ISDA)

Idaho has 67 weeds species and 4 genera designated as noxious by the state. There will be a quick update on the new genera listing and on the status of Japanese yew petition that was made in 2017. Following this the presentation will cover basic terrestrial and aquatic plant identification for Idaho's noxious weeds.