FICMNEW - public DRAFT meeting notes

27-April-2016, 2:30 PM eastern

DRAFT Notes

Facilitated by Terri Hogan

Attendees: Terri Hogan (NPS, cochair, facilitator), Annie Simpson (USGS, cochair, notetaker), Bob Nowierski (NIFA), Dave Edington (BIA), Dave Mortensen (Penn State, Presenter), Jolene Trujillo (BOR), Lee Van Wycken (WSSA), Jil Swearingen (NPS), Gina Ramos (BLM), Rosalind James (ARS), Jonathan Jones (APHIS), Dana Backer (NPS), Anna Lyon (Washington Dept of Fish&Game)

Important links:
http://www.fs.fed.us/ficmnew/

1) Last **meeting notes** (distributed by listserv) were approved with no changes.

2) **Presentation: Impact of herbicides on non-target plant species in field edges & road networks, and the implications for pollinator health and protection** by Dave Mortensen (Professor of Weed and Applied Plant Ecology, Penn State, http://plantscience.psu.edu/directory/dam37)

- How to balance weed suppression with ecosystem service provisions, along agricultural edges and rights-of-way
- www.weedecologypsu.com
- Presentation is the work of many: Melanie Kammerer, Art Gover, Katy Barlow, and more.
- Both floristic composition of existing landscape, and selective manipulation of floristic diversity, is influenced by scientific work, human interactions, and policy
- Challenge: enhancing pollinator habitat, within the underpinning ecology
- Weed control can be achieved while still supporting pollinators and biocontrol insects
- Important parameters: species composition, timing of actions, proximity of pollinator and flower species
- North American Agroecosystem characteristics
  - 80% of parasitoids must visit/relate with 1 or 3 different species in order to complete their life cycle. If these species are not present, the parasitoid disappears; they are much more vulnerable than many generalist pollinators.
  - *Eupatorium perfoliatum* supports many more pollinators than any other plant species
  - *Bombus impatiens* is the most abundant pollinator species, and is a generalist that visits more than 10 plant species.
  - Removal of broadleaf plants with blanket herbicides **will** eliminate pollinators as both pollinators and parasitoids are closely connected to specific plant species.
  - Bohnenblust et al. (2016) reviewed effect of dicamba herbicide on non-target plants and pollinators and found significant negative effects. (*Environmental Toxicology and Chemistry, Journal of Pest Science* 35:144-151.)
  - Edge habitats are vulnerable, and are abundant. Calculated how much edge habitat exists in the Midwestern agricultural landscape; found it generally was between 2-4%.
  - The 'edginess' of the landscape affects habitat vulnerability
- What is the influence of burning on western agroecosystems? It could increase diversity; cedar would disappear; more study is needed.
- WSSA symposium examined the potential for increasing abundance of milkweed to offset the decline of monarch butterflies. It was suggested that edges could be planted with milkweed. Increased agricultural development increases the amount of edge, because large blocks of riparian lands means there is less edge.
- Describing the microecosystem process:
  - Some crops are not pollinator dependent; it is important to identify which are pollinator dependent
  - Next, identify rights of way within foraging distance of the pollinator dependent zones.
  - Goldenrod and Joe Pie Weed are both very important weeds for pollinators; spray around them or replant them.
  - Seasonality of blossoms is important to pollinator survival as well (trees, herbs, shrubs)
  - Choosing the species for plantings along roadside edges is important; leave out aggressive ones like Canada thistle, mugwort, and crownvetch because they can become monocultures
- Recommended that edge re-plantings, to be aggressive-weed-resistant, consist of seed species that are
  - Natives
  - Perennials

  - Tolerant of sun or part shade
  - Non-aggressive
- If aggressive invasive weeds have taken over, non-soil active herbicides can 'reset' the system so it can be replanted
- May require invasive suppression, establish native seed mix, reapplication, reseeding; can be a 3-5 year process
- Maintenance of the site in a mid successional stage will require monitoring and management
- Summary
  - Before supplementing manage in a way that conserve floristic diversity and abundance
  - Monitor and document the floristic provisioning capacity of our agricultural and rights of way habitats
  - Achieving flora provisioning habitat is a process not an endpoint
- Does Best Management Practices guidance exist? Yes, many have been developed and are available on the web www.weedsciencepsu.com Some is print matter as well. Art Gover is the best point of contact for BMPs
- How do you manage habitats with sensitive grasses and forbs, e.g., rangeland settings? They are sensitive to herbicides. If you use Oust or Arsenal, and they are persistent because of both the chemical and the depletion of the seed bank. Alternatively, use thistle weevil instead. Or burning plus spot-spraying. Over-seeding with desirable species can also suppress the invasive species.
- Do provided 'good pollinator species seed packets' work across different habitats throughout the country? There are more than 300 spp that are raised by Ernst Seed Company near Lake Erie, and sold east of the Mississippi. Effectiveness of these seed packets will vary with the area they are used, but can be planted relatively widely. In Europe, they believe plants should come from a source no more than 10 miles away, because they are believed to have co-evolved closely with local pollinators.
- Invasive plant management practices need to be mild enough to keep from knocking out the 40% of species needed for healthy habitats.
- Proximity matters. If invasive species population(s) exist near restoration area, there is a substantial increase in likelihood of invasion of restoration site by these species.

3) **FICMNEW list e-digest** will no longer be hosted by Armed Forces Pest Management Board (Simpson)
- AFPMB is required to give up their afpmb.org Web domain, and no longer can host the Lsoft listserv software.
- FICMNEW members are examining other options for communicating with the broader community.
- There will be an update at our next meeting, including the possibility of ARS hosting the lists.

4) **Participants' Roundtable** (All)
NIFA (Nowierski): Requests for Applications (RFAs) for a number of Agriculture and Food Research Initiative (AFRI) programs are being delayed by a few months due to legal and administrative review of Commodity Board Provision language mandated from the 2014 Farm Bill. The Commodity Board Provision allows commodity boards to suggest research priorities, and if accepted by NIFA, will require that the Commodity Board provide matching funds for the relevant AFRI Program.

ARS (James): Got funding for a research position in Sydney, MT – for work on weed control strategies that are gentle on pollinators. John Gaskin still leads the team there.

WSSA (Van Wycken): Herbicide registration issues at EPA (e.g. Dicamba) is requiring a herbicide resistance management plan, and the Weed Science Community is trying to weigh in with the comments, hoping to help streamline the process. WSSA will be commenting on EPA's proposed paraquat restrictions. [For more see Appendix A]

NPS (Hogan): BioBlitzes are part of the Centennial Celebration, and Jamie Reasor is pulling together a group of invasive species experts to participate and perform EDRR in the DC area. Jil Swearingen's group is hosting the DC area effort. Another EDRR effort will be carried out in all parks in South Carolina, and map new locations of species across the state.

5) **Next meeting** – Wednesday, 25-May, 2:30-4:00 PM eastern.

Presentation ideas welcomed, email terri_hogan@nps.gov

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Appendix A: Detailed notes from WSSA Roundtable

The National and Regional Weed Science Societies will be Commenting on EPA's Proposed Resistance Management Plan

EPA's proposed registration outlines a Resistance Management Plan (RMP) to ensure that use of dicamba on dicamba-tolerant cotton and soybeans successfully manages weed resistance problems. The proposed RMP is a creative and comprehensive plan to deal with herbicide resistance and is a logical outcome from the comments made by EPA's Director of the Office of Pesticide Programs, Jack Housenger, during his presentation at the 2nd Herbicide Resistance Summit. However, the proposed RMP also represents a significant change in how weed resistance is monitored, mitigated and communicated. As such, it is troubling that the proposal was included as part of the proposed dicamba registration and not as a separate Pesticide Registration (PR) notice by itself. The policy implications of the RMP proposal are significant enough to warrant this action; therefore the National and Regional Weed Science Societies are urging EPA to follow with a PR notice solely on the herbicide resistance management plan.

EPA also proposed the following application restrictions for dicamba (M1691) to aid in spray drift management:

- No applications from aircraft.
- Only one nozzle, the Tee Jet® TTI11004, can be used
- No applications when wind speed is over 15 mph.
- Do not exceed a boom height of 24 inches above target pest or crop.
- A within-field buffer that ranges from 110 to 220 feet in all directions, depending on application rate
- Applications should not occur during a local, low level temperature inversion because drift potential is high.
- Do not apply when the wind is blowing towards adjacent commercially grown sensitive crops such as tomatoes, cucurbits, and grapes.

One additional concern that has been expressed by many weed scientists is EPA's proposed prohibition on tank mixes for dicamba (M1691) with other herbicides due to the possible unknown synergistic effects on non-target plants including endangered species. However, research has shown that herbicide mixtures utilizing two or more different mechanisms-of-action (MOA's) applied at the same time are more effective at preventing weed resistance than a rotation of herbicide MOA's where only one MOA is applied at a time. Given the above spray drift management restrictions already required, especially the minimum 110 foot buffer, I would argue that the benefits of being able to tank mix two MOA's for resistance management far outweighs any possible unknown synergism effects on an endangered species.

Public comments on EPA's proposed regulatory decision must be submitted no later than May 31, 2016 to the EPA docket EPA-HQ-OPP-2016-0187.

WSSA will be Commenting on EPAs Proposed Paraquat Restrictions

EPA has proposed new restrictions and mitigation measures for paraquat, which is currently undergoing registration review. Paraquat is an important option for non-selective weed control. It is widely used in non-crop areas and fallow and as a defoliant for crops like cotton and potatoes. We also know that paraquat is toxic in mammalian systems and can be lethal if ingested in small amounts. Since 2000, there have been 17 deaths caused by accidental ingestion of paraquat. These cases have resulted from paraquat being illegally transferred to beverage containers like Gatorade bottles and coffee cups, and later mistaken for a drink and consumed. EPA is proposing the following changes:

1. New closed-system packaging designed to make it impossible to transfer or remove the pesticide except directly into the proper application equipment;
2. Special training for certified applicators who use paraquat to emphasize that the chemical must not be transferred to or stored in improper containers;
3. Changes to the pesticide label and warning materials to highlight the toxicity and risks associated with paraquat.
4. Prohibiting application from hand-held and backpack equipment; and,
5. Restricting the use to certified pesticide applicators only (individuals working under the supervision of a certified applicator would be prohibited from using paraquat).

Paraquat is already a Restricted Use Pesticide for use only by certified applicators or persons under their direct supervision. WSSA supports increased education and enhanced warning materials for paraquat, but have concerns about the proposed

application prohibitions or restrictions, especially from a research point-of-view. EPA's proposed restrictions on paraquat will be available for comment until May 19, 2016. For more details: **https://www.regulations.gov/#!docketDetail;D=EPA-HQ-OPP-2011-0855**

Appendix B: Potential Acronyms List

Term/ Acronym	Meaning *[note that some acronyms in this list may not appear in this document]*
ACK55	Bioherbicide *Pseudomonas fluorescens* strain ACK55
AM	Ante Meridian (morning)
ANSTF	Aquatic Nuisance Species Task Force
APHIS	Animal and Plant Health Inspection Service, Department of Agriculture
APIPP	Adirondack Park Invasive Plant Program
ASAP	As Soon As Possible
BLM	Bureau of Land Management, Department of Interior
BOR	Bureau of Reclamation, Department of Interior
CO	Colorado
CONABIO	National Commission for Knowledge and Use of Biodiversity (in Spanish)
CWMA	Cooperative Weed Management Area
D7	bioherbicide *Pseudomonas fluorescens* strain D7
DC	District of Columbia
DHS	Department of Homeland Security
DOE	Department of Energy
DOI	Department of Interior
DOS	Department of State
DOT	Department of Transportation
EA	Environmental Assessment
EAB	Emerald Ash Borer
EDDMapS	Early Detection and Distribution Mapping System
EDRR	Early Detection Rapid assessment and Response
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ET	Eastern Time
FACA	Federal Advisory Committee Act
FEIS	Fire Effects Information System
FHWA	Federal Highway Administration, Department of Transportation
FICMNEW	Federal Interagency Committee for the Management of Noxious Exotic Weeds
FWS	Fish and Wildlife Service, Department of Interior
GrSG	Greater Sage Grouse
ICR	Internal Control Review
IPC	Invasive Plant Control, Inc.
IPM	Integrated Pest Management
ISAC	Invasive Species Advisory Committee (FACA Committee of NISC)
ITAP	Federal Interagency Committee on Invasive Terrestrial Animals and Pathogens
LLC	Limited Liability Company
MAP-21	Moving Ahead for Progress in the 21st Century Act
MOU	Memorandum Of Understanding

Term/ Acronym	Meaning *[note that some acronyms in this list may not appear in this document]*
NAISF	North American Invasive Species Forum (formerly Weeds Across Borders),
NAISMA	North American Invasive Species Management Association (formerly NAWMA)
NAISN	North American Invasive Species Network
NAWMA	North American Weed Management Association (former name, now NAISMA)
NBVC	Naval Base Ventura County, Department of Defense
NEPA	National Environmental Policy Act
NGO	Non-Governmental Organization, generally not-for-profit
NIFA	National Institute of Food an Agriculture, Department of Agriculture
NISC	National Invasive Species Council
NISMS	National Invasive Species Management System (Bureau of Land Management)
NOAA	National Oceanographic and Atmospheric Agency, Department of Commerce
NPS	National Park Service, Department of Interior
NW	North West
NY	New York
OESHA	Office of Environment, Safety and Health Assessments, Department of Energy
OMB	Office of Management and Budget
PA	Pennsylvania
PM	Post Meridian (afternoon), also Presidential Memorandum
PRISM	Partnership for Regional Invasive Species Management
RFP	Request For Proposals
RFS	Renewable Fuel Standard program (EPA)
RIN	Regulation Identification Number (EPA)
RRIS	Reduce Risks from Invasive Species Coalition
SAFED	FICMNEW elist for federal employees
SD-DA	South Dakota Department of Agriculture
Spp	species
TN	Tennessee
URL	Web address; Uniform Resource Locator
US	United States
USDA	United States Department of Agriculture
USFS	United States Forest Service, Department of Agriculture
USGS	United States Geological Survey, Department of Interior
WAB	Weeds Across Borders (now North American Invasive Species Forum)
WRA	Weed Risk Assessment
WSSA	Weed Science Society of America