Executive Director of Science Policy Report – Lee Van Wychen
WSWS Annual Meeting, Denver, CO. Mar. 11, 2019

2018 Farm Bill Signed Into Law in December: Some highlights/lowlights:
- Yes to reauthorization for the Foundation for Food and Agriculture Research (FFAR) at $185M
- No legislative fix for the duplicative National Pollutant Discharge Elimination System (NPDES) program permits
- No Congressional repeal of the 2015 Waters of the United States (WOTUS) rule
- No to legislative guidance to streamline the FIFRA-Endangered Species Act consultation process, but YES to the creation of FIFRA Interagency Workgroup composed of reps from USDA, Interior, Commerce, EPA and CEQ.
- No reauthorization of the Pesticide Registration Improvement Act (PRIA). **Note**: PRIA 4 was passed by the House and Senate last week and is expected to be signed into law by the President this week.
- Yes to addition of ag research grants for equipment (up to $500K).
- Yes to the use of "Categorical Exclusions" by the Forest Service and BLM for invasive weed control for the purpose of Sage Grouse and Mule Deer habitat restoration
- Yes to legalization of the commercial cultivation and sale of hemp, plus $2M/yr for hemp research.
- No to State Lead Agencies on FIFRA authority over local jurisdictions
- Yes to a new $50M/yr program called the Agriculture Advanced Research and Development Authority (AGARDA). Among its goals is a directive "to undertake advanced research and development in areas in which industry by itself is not likely to do so because of the technological or financial uncertainty". It will have its own director within USDA.

EPA Re-Registers Dicamba Through 2020: On Oct. 31, EPA extended the registration for two years for over-the-top use of dicamba in dicamba-tolerant cotton and soybean. The registration will automatically expire on December 20, 2020, unless EPA further extends the registration. Click HERE for details. **2019 – 2020 Dicamba Product labels**: Xtendimax with Vaporgrip (Updated since Nov. 1, 2018), Engenia, & Fexapan. **Dicamba federal register documents**: Under "Supporting Documents" there are two documents: 1) **Dicamba Pesticide Use Limitation Areas - County list**; and 2) **The Scientific Basis for Understanding the Off-Target Movement Potential of Xtendimax**, which is a 46 pg document from Monsanto that tries to explain why (a) vapor drift occurring due to volatilization should not result in impacts off the treated field; and (b) spray drift will not occur past the label's required buffer distances in amounts that would have an adverse effect on plant height. Also, under the "Comments Section", there is a post from Oct. 31, 2018 titled "**Dicamba 2018 Comments**", which is 553 pages of documents that EPA received from stakeholders asking them to re-reregister, not re-register, etc. Pages 293-550 are just 1,000s of opposition signatures from the Pesticide Action Network (PAN) and Center for Biological Diversity (CBD). **Discussion of the FIFRA Section 24(c) process.** States have used the Section 24(c) process to get both emergency uses of pesticides and to pass more restrictive state regulations of certain pesticides. However, there has been political pressure to roll back the Section 24(c) process to its original intent of allowing states only to secure emergency use exemptions of pesticides, but not to allow states to use the Section 24 (c) process to restrict the use of pesticides (i.e. dicamba). States can still be more restrictive of the federal label, but this takes time and money. **Dicamba Lawsuit Dismissed but Door Still Open**. The 9th Circuit Court of Appeals dismissed a lawsuit against dicamba on Jan. 10, but left open a door for the plaintiffs to expedite a new lawsuit in 2019. The original lawsuit, which was filed by four environmental groups in 2017, argued that the EPA's 2016 registration of XtendiMax for over-the-top use on soybean and cotton fields was unlawful. When that registration ended and EPA renewed the dicamba registration on Oct. 31, 2018, Monsanto and EPA argued that the court should dismiss the lawsuit as moot. The court agreed, but the panel of judges also ruled that the plaintiffs, National Family Farm Coalition et al., should be allowed to fast-track a new lawsuit based on the new 2018 dicamba registration.

Glyphosate: the WSSA Public Awareness Committee is working on a Fact Sheet on glyphosate safety and non-carcinogenicity. The WSSA Board has expressed concern that were not toxicologists or epidemiologists, so we will need to go back to the drawing board.

Atrazine: Ongoing registration review. Human health risk assessment comments were due Nov. 23. We will continue to work with the EPA to refine their environmental risk assessment.

Weed Genomics: There is a strong interest in funding for weed genomics work at USDA NIFA. For example, a better understanding of dioecy in certain weed species such as Palmer amaranth and waterhemp could lead to a NOVEL weed control approach in which a gene drive is used to manipulate gender ratios and drive the population to extinction, similar to the sterile insect technique used to eradicate the screwworm from the U.S. Pat Tranel, University of Illinois, will present a seminar to House and Senate Ag Committee staff on this concept on June 10.

New USDA NIFA Director: Dr. J. Scott Angle began his 6 yr term as NIFA Director on Oct. 29. He worked for 24 years as a professor of soil science and administrator for the Maryland Agricultural Experiment Station and Maryland Cooperative Extension.

Hutchins Re-nominated for USDA Chief Scientist Spot: Dr. Scott Hutchins cleared his Senate nomination hearing on Nov. 28, 2018, but when the 115th Congress expired on Jan. 3 and the 116th Congress began, Hutchins will have to go through the nomination process again. In the meantime, Sec. Perdue temporarily appointed him as a "deputy" under secretary which means he can get to work at USDA but will not have all the authorities of a Senate confirmed under secretary. He was the Global Head of Integrated Field Sciences for Corteva.

USDA-ARS: Rosalind James, the National Program Leader (NPL) overseeing weed science moved into a different role on Nov. 23. We expect USDA to hire a new NPL to oversee weed science and definitely want this person to be a weed scientist (and not an entomologist). The USDA-ARS Crop Protection & Quarantine program (~$90M/yr) had a 5 yr review scheduled for Feb. 6, but that has been rescheduled to April 2 due the partial gov't shutdown.

Alexandra Dapolito Dunn Approved for EPA's Top Chemical Safety Spot: Dr. Dunn was approved by the Senate on January 3, 2019 to lead EPA's Office of Chemical Safety and Pollution Prevention (OCSPP). This office oversees the Office of Pesticide Programs (OPP) that conducts the pesticide registration process. She is an environmental lawyer and law professor specializing in water quality issues. Alexandra was the Regional Administrator for EPA Region 1 (Northeast U.S.) and prior to that, served as executive director and general counsel for the Environmental Council of States (ECOS) as well as the Association of Clean Water Administrators.

Clean Bean Team: Carroll Moseley, Jill Schroeder, Heather Curlett (USDA-APHIS), Patsy Laird, Shawn Conley and I have been working to get the message out to commodity groups and farmers on recommended best practices for reducing weed seeds in U.S. soybean exports. Weed seeds are a serious phytosanitary concern and increases in herbicide-resistant weeds may be contributing to more weed seeds in harvested crops. We have a poster on this that has been at all the weed science meetings (including WSWS). Shawn Conley and I also put together a symposium on this topic at the WSSA meeting in New Orleans.

USDA-NIFA Move from DC: In August, USDA announced that NIFA and ERS would be moving from D.C. While the new location for the agencies has yet to be determined, the timeframe for the move is expected to occur by the end of 2019. USDA's announcement of intent to move the agencies has garnered many concerns from the agricultural research community, including WSSA. However, the Science Policy Committee has not reached a consensus on either to support or oppose the move outright. WSSA did submit a letter to USDA Sec. Perdue with some concerns and questions. In October, USDA received 136 "expressions of interest" from various institutions and cities in 35 states to be the new host location for NIFA and ERS. NIFA Director Angle said he expects that to be narrowed down to 4 or 5 locations within a month and that approximately 50 of NIFA's 300 staff would remain in DC.

WSSA Rep for TAG-BCAW: In June, WSSA selected Dr. John Madsen to be WSSA's new rep for the Technical Advisory Group for Biocontrol Agents of Weeds (TAG-BCAW). However, Dr. Madsen was told by USDA-ARS that he cannot serve in this role. The next highest ranking candidate was Dr. Te-ming Paul Tseng, a weed physiologist at Mississippi State University. Paul was offered and has accepted this role. WSSA will re-evaluate on Mar. 1, 2020.

Syncing USDA Plants Database with WSSA Composite Lists of Weeds: At the WSSA Summer Board meeting, there was a motion to adopt the USDA Plants Database as the official source of weed nomenclature and taxonomy and discontinue WSSA's Composite List of Weeds. However, there are some issues with the USDA Plants Database that need to be resolved first. The USDA Plants Database gets 50,000 hits a day off the internet and is undergoing a major overhaul of its infrastructure and search capabilities. It's run by the USDA-NRCS out of Greenville, NC. The goal is for WSSA to work with NRCS Plants Database team to get them to adopt the 3,000 plus "official" weed names on WSSA's Composite List of Weeds as the primary **common** name for that weed species on NRCS's Plants Database. In most cases, they are the same, but notable differences exist. For example the USDA Plants Database primary common name for Palmer amaranth is 'carelessweed'. For waterhemp, its 'roughfruit amaranth'. For giant foxtail, its 'Japanese bristlegrass'. USDA is willing to work with the weed science community to get these common names of weeds synced up and good progress is being made.

Science Policy Fellow: WSSA has agreed to put forth $15K to fund two graduate students to serve as Science Policy Fellows (SPF) to support the Executive Director of Science Policy (EDSP). An advertisement went out to all the National and Regional Weed Science Societies. We received six outstanding applications and selected two: John Schramski from Michigan State and Halley Summers from Penn State.

Weed Bingo proposal: The WSSA Board agreed to pay $10,040 on our proposal to produce 1,000 copies of "Weed Bingo" produced by http://lucybingogames.com/custom. Carroll Moseley and Eric Gustafson have been instrumental in helping me put this together. We are seeking support and input from each of WSSA's affiliated weed science societies: APMS, CWSS, NCWSS, NEWSS, SWSS, and WSWS. We need to select 42 species of weeds (total) and provide photos of each of them, plus provide 40-60 words of descriptive educational background for each species. **Initial feedback from each of the societies is due March 18**. The draft list of species assigned to the WSWS is: Dalmatian toadflax, downy brome (cheatgrass), Italian ryegrass, kochia, leafy spurge, saltcedar (tamarisk) and yellow nutsedge. The goal is to sell each Weed Bingo game for $14.95 each + S&H, which is the same price as an existing "Bug Bingo" game.

"Executive Visits Day" for Weed Science Society Presidents in DC: The presidents from each of the weed science societies (or their representative) will fly to DC from April 1 – 4 to pound the pavement at USDA, EPA, DOI, etc. as well as on Capitol Hill. We will spend April 2 at USDA-ARS for the review of their Crop Protection and Quarantine Program. The main focus on April 3 will be promoting a Federal Job Series for "Weed Science".

National Invasive Species Awareness Week (NISAW): Was February 25 – March 3, 2019. This was the 20th year of national invasive species/weeds events occurring. My co-host and organizer for NISAW is Rick Otis with the Reduced Risk for Invasive Species Coalition (RRISC). We're looking at two additional NISAW events, one in April dealing with policy issues and one in June that will be hands-on in the field awareness. I'm looking to reinvigorate NISAW in 2020.

Wild Spotter: Mapping Invasives in America's Wild Places: A new nationwide **citizen science** volunteer capacity-building program called Wild Spotter (https://wildspotter.org) has been launched that is designed to help locate and map aquatic and terrestrial invasive species in Wilderness Areas, Wild & Scenic Rivers, and other wild places across the 193 million-acre National Forest System. **I added WSWS as a "partner"** (along with WSSA, APMS, and the other regional weed science societies).

Natural Resources Management Act (S. 47) Will Become Law: The House and Senate passed a federal lands management bill in February that the President is expected to sign it into law this week. Some of the things addressed in the bill include: land conveyances, exchanges, acquisitions, withdrawals, and transfers; wildlife conservation; wildland fire operations; funding for the Land and Water Conservation Fund; and federal reclamation projects. The bill authorizes approximately $3.5 million per year for FY 2019 to FY 2023 for invasive species management, research and outreach efforts in conjunction with wildlife habitat and conservation. Of the $3.5M authorized, not less than 75% should be used for on the ground control and management and not more than 15% should be used for investigations and outreach.

National Survey of Common and Troublesome Weeds: The 2018 survey **results for weeds in aquatic and non-crop areas** is posted at http://wssa.net/wssa/weed/surveys/. (SEE BELOW). The 2019 weed survey will focus on weeds in broadleaf crops, fruits and vegetables. I am working with Debalin Sarangi, a post doc at Texas A&M and Muthu Bagavathiannan to analyze and publish the weed survey data for agronomic crops from 2015 through 2017 in *Weed Science*.

2018 Results for the U.S. & Canada (239 survey responses)

Most Common and Troublesome Weeds in Aquatic and Non-crop Areas

1) aquatic: irrigation & flood control, 2) aquatic: lakes, reservoirs, rivers, 3) aquatic: ponds, 4) forestry, 5) natural areas: parks, wildlife refuges, 6) ornamentals: field nursery crops, outdoor containers, Christmas trees, and 7) right-of-ways: railways, roads, public utilities

Common weeds refer to those weeds you most frequently see.

Troublesome weeds are those that are most difficult to control, but may not be widespread.

WSSA's Composite List of Weeds is used for weed common and latin names
http://wssa.net/wssa/weed/composite-list-of-weeds/

Top 5 Weeds in Aquatic: Irrigation, Flood Control
(19 survey respondents)

	MOST COMMON	MOST TROUBLESOME
1	hydrilla (8)*	hydrilla (9)*
T2	sago pondweed (6)	horned pondweed (6)
T2	horned pondweed (6)	sago pondweed (5)
4	Brazilian egeria (elodea) (5)	algae spp. (4)
T5	algae spp. (4)	flowering rush (4)
T5	coontail (4)	coontail (4)
T5	crested floatingheart (4)	Brazilian egeria (elodea) (4)
		crested floatingheart (4)

*** number of survey respondents who listed the weed species as one of their top 5 weeds in this aquatic area.**

Top 7 Weeds in Aquatic-Lakes, Reservoirs, Rivers
(54 survey respondents)

	MOST COMMON		MOST TROUBLESOME
1	Myriophyllum spp.(29)*	1	Myriophyllum spp.(32)*
2	hydrilla (27)	2	hydrilla (30)
T3	waterhyacinth (23)	3	waterhyacinth (23)
T3	pondweed spp. (23)	T4	alligatorweed (12)
T5	alligatorweed (11)	T4	crested floatingheart (12)
T5	brittleleaf & southern naiad (11)	T4	curlyleaf pondweed (12)
T5	waterlettuce (11)	7	Tie among 3 species (9)
T5	creeping & water primrose (11)		

*** number of survey respondents who listed the weed species as one of their top 5 weeds in this aquatic area.**

- Myriophyllum spp. included Eurasian, variable, northern and hybrid watermilfoil, and parrotfeather.
- pondweed spp. included curlyleaf, leafy, American and small pondweed.

Top 6 Weeds in Aquatic: Ponds
(20 survey respondents)

	MOST COMMON	MOST TROUBLESOME
1	algae spp. (10)*	Lemna spp. (9)*
T2	hydrilla (7)	algae spp. (7)
T2	Lemna spp. (7)	watermeal spp. (7)
T2	southern & brittleleaf naiad (7)	Myriophyllum spp. (6)
5	Ludwigia spp. (6)	Ludwigia spp. (5)
6	Tie among 3 species (5)	Tie among 3 species (4)

*** number of survey respondents who listed the weed species as one of their top 5 weeds in this aquatic area.**

- algae spp. included Pithorphora, Spirogyra, filamentous and planktonic algae.
- Lemna spp. included common duckweed and duckmeal.
- Myriophyllum spp. included Eurasian and variable watermilfoil and parrotfeather.
- Ludwigia spp. included water primrose and creeping water primrose.

Top 5 Weeds in Forestry
(26 survey respondents)

	MOST COMMON
T1	Chinese privet (8)*
T1	honeysuckle spp. (8)
3	pine spp. (5)
T4	multiflora rose (4)
T4	Chinese tallowtree (4)

	MOST TROUBLESOME
1	Chinese privet (7)*
T2	cogongrass (6)
T2	kudzu (6)
T2	Chinese tallowtree (6)
T5	Japanese climbing fern (5)
T5	Japanese stiltgrass (5)

*** number of survey respondents who listed the weed species as one of their top 5 weeds in this crop.**

- honeysuckle spp. included Japanese and Amur honeysuckle.
- pine spp. included loblolly and Scots pine.

Top 7 Weeds in Natural Areas: Parks, Refuges

(57 survey respondents)

	MOST COMMON		MOST TROUBLESOME
1	Bromus spp. (17)*	1	Lygodium spp. (18)*
2	cogongrass (15)	2	cogongrass (15)
3	Centaurea spp. (14)	3	Bromus spp. (12)
T4	privet spp. (13)	4	Centaurea spp. (10)
T4	honeysuckle spp. (13)	T5	privet spp. (9)
6	Brazilian peppertree (11)	T5	honeysuckle spp. (9)
7	cadillo (Caesarweed) (10)	T5	Chinese tallowtree (9)

*** number of survey respondents who listed the weed species as one of their top 5 weeds in this crop.**

- Bromus spp. included downy brome (cheatgrass), cheat, and smooth and ripgut brome.
- Lygodium spp. included old world and Japanese climbing fern.
- Centaurea spp. included spotted and diffuse knapweed and yellow starthistle.
- privet spp. included Chinese, Japanese, and border privet.
- honeysuckle spp. included Japanese, Amur and Morrow's honeysuckle.

Top 5 Weeds in Ornamentals: Field Nursery Crops, Outdoor Containers, Christmas Trees

(18 survey respondents)

MOST COMMON		MOST TROUBLESOME	
T1	hairy/flexuous bittercress (5)*	1	yellow/purple nutsedge (7)*
T1	creeping woodsorrel spp. (5)	T2	Chamaesyce spp. (4)
T1	crabgrass spp. (5)	T2	eclipta (4)
T1	Euphorbia spp. (5)	T4	creeping woodsorrel spp. (3)
T1	groundsel spp. (5)	T4	field bindweed spp. (3)

*** number of survey respondents who listed the weed species as one of their top 5 weeds in this crop.**

- crabgrass spp. included southern and large crabgrass.
- Euphorbia spp. included prostrate and spotted spurge.
- groundsel spp. included common and woodland groundsel.

Top 6 Weeds in Right-Of-Ways: Railways, Roads, Public Utilities

(45 survey respondents)

MOST COMMON		MOST TROUBLESOME	
T1	kochia (15)*	1	Canada & bull thistle (12)*
T1	Bromus spp.(15)	2	kochia (11)
T3	Canada thistle (11)*	3	johnsongrass (9)
T3	Russian-thistle (11)	4	Russian-thistle (8)
5	Centaurea spp. (8)	5	leafy spurge (6)
6	johnsongrass (7)	6	Tie among 4 species (5)

*** number of survey respondents who listed the weed species as one of their top 5 weeds in this crop.**

-Bromus spp. included downy brome (cheatgrass), cheat, rescuegrass, and smooth and Japanese brome.

- Centaurea spp. included spotted, diffuse, and squarrose knapweed and yellow starthistle.

Top 10 Most Common Weeds among all 3 Aquatic Area types

(93 total survey respondents)

MOST COMMON

1	hydrilla (42)*
2	Myriophyllum spp.(38)
3	pondweed spp. (30)
4	waterhyacinth (26)
T5	Ludwigia spp. (18)
T5	naiad spp. (18)
T7	algae spp. (17)
T7	coontail (17)
9	alligatorweed (16)
10	waterlettuce (13)

*** number of survey respondents who listed the weed species as one of their top 5 weeds.**

- Myriophyllum spp. included Eurasian, variable, northern, and hybrid watermilfoil and parrotfeather.
- pondweed spp. included curlyleaf, American, leafy, floatingleaf, small, variable, and waterthread pondweed.
- Ludwigia spp. included creeping water primrose and water primrose.
- naiad spp. included southern and brittleleaf naiad.
- algae spp. included Spirogyra, Pithorphora, filamentous and planktonic algae.

Top 10 Most Troublesome Weeds among All 3 Aquatic Area types

(93 total survey respondents)

MOST TROUBLESOME

1	hydrilla (43)*
2	Myriophyllum spp. (41)
3	waterhyacinth (28)
T4	alligatorweed (18)
T4	crested floatingheart (18)
T6	Ludwigia spp. (16)
T6	pondweed spp. (16)
8	algae spp. (14)
9	giant salvinia (13)
10	Tie among 2 species (11)

*** number of survey respondents who listed the weed species as one of their top 5 weeds.**

- Myriophyllum spp. included Eurasian, variable and hybrid watermilfoil and parrotfeather.
- Ludwigia spp. included creeping, Uruguay, and water primrose and primrose-willow.
- pondweed spp. included curlyleaf, American and variable pondweed.
- algae spp. included Spirogyra, Pithorphora, filamentous and planktonic algae.

Top 10 Most Common Weeds among all 4 Non-crop Area types

(146 total survey respondents)

MOST COMMON

1	Bromus spp. (33)*
2	Centaurea spp. (25)
3	privet spp. (24)
4	honeysuckle spp. (23)
5	Canada thistle (22)
6	cogongrass (21)
7	kochia (20)
8	Euphorbia spp. (15)
T9	Japanese stiltgrass (13)
T9	Russian-thistle (13)

*** number of survey respondents who listed the weed species as one of their top 5 weeds.**

- Bromus spp. included downy brome (cheatgrass), cheat, rescuegrass, and smooth, ripgut and Japanese brome.
- Centaurea spp. included spotted, diffuse, and squarrose knapweed and yellow starthistle.
- privet spp. included Chinese, Japanese, and border privet.
- honeysuckle spp. included Japanese, Amur, and Morrow's honeysuckle.
- Euphorbia spp. included leafy, prostrate and spotted spurge.

Top 10 Most Troublesome Weeds among all 4 Non-crop Area types

(146 total survey respondents)

MOST TROUBLESOME

1	cogongrass (26)*
2	Lygodium spp. (24)
T3	Centaurea spp. (19)
T3	Canada thistle (19)
T3	privet spp. (19)
T6	Bromus spp. (17)
T6	Chinese tallowtree (17)
8	leafy spurge (15)
T9	Tie among 3 species (14)

*** number of survey respondents who listed the weed species as one of their top 5 weeds.**

- Lygodium spp. included old world and Japanese climbing fern.
- Centaurea spp. included spotted and diffuse knapweed and yellow starthistle.
- privet spp. included Chinese and Japanese privet.
- Bromus spp. included smooth and downy brome (cheatgrass).