Pesticide and Noxious Weed Newsletter

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Pesticide Disposal Concerns

Tim Creger

In 1992, the Nebraska Department of Environmental Quality (NDEQ) adopted regulations for the storage of bulk pesticides and fertilizers, known as Title 198. Even though administered by NDEQ,the Nebraska Department of Agriculture (NDA) has a written agreement with NDEQ to conduct inspections and document compliance at any facility subject to these regulations. When passed, many already-established facilities were grandfathered, but any new or remodeled facility built after 1999 had to comply with certain engineering and design standards. What the regulations didn't address was what a facility was supposed to do with waste from the material the containment structures were designed to hold.

(Used with the permission of the Lower Platte South NRD.)

Enter NDA and the Nebraska Pesticide Act. Passed by the Legislature in 1993, the Pesticide Act and regulations make it a violation for anyone to dispose of pesticide wastes in a manner that (1) violates the pesticide label provisions, (2) causes pollution of any water resource of the state, or (3) causes environmental harm. What this means to anyone creating waste pesticides is that they must properly manage those wastes using appropriate means.

Pesticide wastes can be generated in a number of different ways. The most obvious would be by spills, leaks, or mistakes when handling pesticides. They are also generated when rinsing out tanks and equipment, as well as washing off the outside of those pieces of equipment. Most pesticide labels specifically prohibit open dumping of any pesticide wastes. If those wastes cannot be used at the target sites listed on the label according to label instructions, one is to follow disposal procedures required by federal, state, or local agencies. These labels also direct the user to contact the state pesticide agency or the U.S. EPA for guidance on proper disposal methods.

Pesticide applicators are often faced with the dilemma of what to do with excess pesticide solutions. Loadout pads and secondary containment structures are designed to catch the majority of those wastes during routine operations, but once the volume builds up, what is the proper way to handle it? There are a few simple steps to keep in mind:

- All pesticide labels list the sites to which those products are legally allowed to be applied. Any waste resulting from the use of those pesticides can only legally be used on a site of application listed on the label. This makes forethought important - to segregate pesticides by crop type, so you don't create a mixture that cannot legally be applied to any crop.
- Establishing and following a plan to minimize the amount of waste pesticide generated solves a lot of problems before they happen. Rinsing tanks and equipment between loads should always be done in the field the chemical was applied to, if possible. If not an option, the wastes (in this case, rinsate) should be collected and used as make-up water in the next application to a listed site of application.
- Pumping or releasing ANY rinsate from loadout pads, containment structures or equipment directly onto the ground, or in a manner that is not contained by a properly designed structure, is considered open dumping. This is a violation of the Nebraska Pesticide Act and the Federal Insecticide, Fungicide and Rodenticide Act. It is considered one of the more serious offenses,

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and almost always results in a financial penalty.

- If collected, waste cannot be disposed of following any of the site-specific methods, the waste must be classified for hazardous materials transport and shipped to a hazardous materials landfill or incinerator.

Label Restrictions for Crop Rotations

Craig Romary and Tim Creger (NDA), and Mike Kucera (NRCS)

Once a pesticide is used in a cropping system, the restrictions on the label must be followed for the original crop it is used on, AND any succeeding crops, until all restrictions on that label have been met. One of these is called the plant-back restriction. Plant-back restrictions exist for two reasons:

1. To avoid carryover pesticide injury to the subsequent crop (such as with herbicides).
2. To protect humans and livestock from elevated levels of pesticide residues that a succeeding crop may accumulate.

Because cover crops are re-emerging as an important practice for conserving soil, increasing soil water, and improving soil health and function, one needs to be aware of these restrictions and include them in the planning process. However, many of the plant species used in today's cover crop mixture may not be specifically listed on the label to ensure establishment of the stand or the safety of the feed or forage. The following points highlight scenarios that may affect what is planted for cover crops and how they are used. Cover crops serve different purposes than forage crops although they may actually be the same species or mixture. The crop's end purpose - i.e., either cover or forage - affects plant-back and forage/harvest restrictions.

Cover crops are planted before or after harvest of the cash crop, where the cover crop WILL NOT be grazed or harvested for forage: It is acceptable to plant cover crop species, as long as the pesticide label does not specifically list plant-back restrictions for the cover crop species, or is silent on the cover crop species (not listed on the label). Some pesticide labels will list crop groups rather than specific crop species.

Forage crops are planted before or after harvest of the cash crop, where the crop WILL BE utilized for grazing or as forage for livestock whose meat, milk, or other products will be marketed: If the pesticide label has any of the following, it is an obvious violation of pesticide laws when a prohibited cover species is planted or grazed/harvested for forage within that period of time:

- specific plant-back restrictions for the crop species;
- prohibitions against grazing/harvesting forage, or
- limits to grazing/harvesting forage within a certain time following a pesticide application.

The absence of any particular forage/cover crop species on the pesticide label does not mean those plant species can be legally grown, harvested, or consumed by animals.

Specific questions on planting, grazing, or haying forage/cover crops should be directed to the pesticide registrant, because the registrant is the one required to submit residue data to EPA for registration purposes. Regulatory questions can be directed to NDA or the lead agency in your state for pesticide regulations. For most states, it's the state agriculture agency – the national directory can be found here: **bit.ly/NASDAmap**).

Resources for the growers, pesticide applicators, and crop consultants:

- UNL's *Guide for Weed Management in Nebraska with Insecticide and Fungicide Information* (**bit.ly/qaqYuT**) contains these tables: Replant Options and Rotation Restrictions, and Forage, Feed and Grazing Restrictions for Row Crop Herbicides.

Note, however, that the table on forage, feed and grazing restrictions is directed toward foraging, feeding, and grazing of the crop the pesticide was applied to, not a cover/forage crop planted after the cash crop.

- University of Wisconsin's *Herbicide Rotation Restrictions in Forage and Cover Cropping Systems* (**bit.ly/1vtLyCg**)

Always read and follow the label directions for these and other restrictions.

New at DriftWatch

NDA and FieldWatch personnel have been working to make the information in DriftWatch as accurate and current as possible for applicators. Many old, outdated, and inaccurate locations have been deleted, while new sites are being added frequently.

DriftWatch now features pesticide sensitive crop information in 12 states and one Canadian province. Within the last few months, Kansas, New Mexico, and Saskatchewan have been added to the existing states of Colorado, Delaware, Illinois, Indiana, Michigan, Minnesota, Missouri, Montana, Nebraska, and Wisconsin.

Features recently added to DriftWatch include:

- A registered applicator, who is also a member of FieldWatch, can now select specific counties from multiple states for notices when new information is added to the map. Membership also allows access to real-time map data. See **www.fieldwatch.com** for more information. Applicators who are registered should watch for email notices directly from FieldWatch.
- Beekeepers now can choose whether or not their beehives appear on the public DriftWatch map, or are visible only to registered applicators. This will make registering as an applicator – which is free of charge - especially important.

Becoming a registered applicator is free! Currently, there are approximately 150 applicators registered to receive DriftWatch notifications.

As the manager, or 'data steward,' for Nebraska DriftWatch, NDA has

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developed its policy for specialty and sensitive crop eligibility. The second page of the flyer found at **bit.ly/NDADWinfo** lists the eligibility criteria, while the first page helps both growers and applicators understand what DriftWatch is and how it works. NDA is promoting DriftWatch to both applicator and grower groups to make it as beneficial as possible for all involved. Access the DriftWatch map to sign-up as an applicator at **www.driftwatch.org**.

Seventy of Nebraska's 93 counties contain a specialty or sensitive crop registered in DriftWatch. A summary of the sites, crops, and acres in Nebraska DriftWatch is as follows:

Crop Type	No. of Sites or Fields	No. of Growers	Acres
Beehives	71	47	*
Fish Farm	3	2	2
Fruits	42	35	189
Orchard	35	26	337
Grapes	140	120	989
Green-house - High Tunnel	16	16	39
Nursery Crops	21	19	269
Other**	279	75	39,056
Vegetables	78	62	1,009
Totals	685	***	41,890

*Beehives are reported as sites, only.
**"Other" includes certified organic crops, the majority of which don't fit other crop categories.
*** The total number of growers is 338. The total of this column is greater because some growers have multiple crops.

Several other states have their own sensitive crop registry system:

- Florida apiaries (**bit.ly/FLBEEreg**)
- Iowa (**bit.ly/CropIA**)
- Maryland (**1.usa.gov/1hcjNCH**)
- North Dakota (**1.usa.gov/1qXUJZE**)
- Ohio (**1.usa.gov/1jXVvfB**)
- Oklahoma (**bit.ly/CropOK**)
- South Dakota (**1.usa.gov/TUCI84**)
- Texas (**bit.ly/1pgpkNJ**)

Applicators working in states not listed should contact the state department of agriculture to see if there is a similar service there. Clicking on this map will provide contact information for that agency in each state (**bit.ly/NASDAmap**).

Why Use Weed-Free Forage?

Jan Bruhn, Box Butte County Weed Superintendent

We are all affected by noxious and invasive weeds. We all benefit from stopping their spread. Non-native weeds invade roadsides, take over waterways, reduce pasture and field-carrying capacities, and erode the attractiveness of our landscapes. Nebraska's Weed Control Association (NWCA) members receive up-to-date training to recognize Nebraska's noxious and invasive weeds. They also learn to recognize 54 weeds that typically are found in neighboring states. Collaboration with other states and several Canadian provinces has opened new markets. Consumers are assured that weed headaches will not accompany the hay, forage, and mulch they buy when the products bear the mark of "Certified Weed Free."

Demand is growing for certified weed-free forage and mulch in Nebraska, our neighboring states, and other western states. Federal and state properties are requiring certified weed-free products for restoration projects following devastating fires or construction of roads, for wildlife-feeding projects, and for animals used for recreational trail riding. The list of uses and demands for "Certified Weed Free" products grows each year. Many states have enacted laws concerning transporting and using forage products brought in from out-of-state.

In Nebraska, the Weed-Free Forage (WFF) Certification Program is voluntary. However, participating in WFF certification is a win/win program for those who use it. Nebraska's weed control authorities offer a ground level inspection program to producers of hay, forage, and mulch before the product is cut or harvested. This program has been in place for a number of years and utilizes standards established by the NWCA. Standards for the WFF Certification program in Nebraska adhere closely to those set by the North American Invasive Species Management Association or NAISMA. This makes our certified products highly marketable in many states and Canadian provinces.

Producers who take advantage of this program can be sure that their fields are clean of at least all of the 54 weeds listed by NAISMA. In addition, users of certified weed-free forage from Nebraska can be assured that the products are free of Nebraska's noxious weeds. Other states recognize weed-free forage from Nebraska only if certification is done under the authority of the NWCA and carries its official marking or designation.

To qualify for certification as "weed-free forage" in Nebraska, the field that is producing the forage must be inspected by a qualified county weed superintendent before it is cut or harvested. This provides the producer with the assurance that their field has been inspected by a professional who knows what weeds are listed. Besides, who is better qualified to provide the most current techniques to control weeds than the local weed superintendent? The qualified superintendent has the authority and knowledge to work with each producer to customize a weed-control plan to make the product acceptable, marketable, and certified.

Producers should make plans now to have their fields inspected. Forage producers and users can check with weed superintendents in their counties for information concerning certified weed-free forage. For more information, contact your county weed superintendent.

More information about Nebraska's WFF program, including contacts for county weed superintendents, can be found at **neweed.org.**

2015 Initial Certification Meetings
Commercial and Non-Commercial

(UNL or Association Training plus NDA Exam)

Date	Meeting	Categories	City	Location
Feb. 17-18	**NATA Convention**	00, 01, 12	Kearney	Ramada Inn
Feb. 3	UNL Initial Certification	00, 01, 04, 08, 08W	Columbus	Platte County Courthouse
Feb. 3	UNL Initial Certification	00, 01, 04, 06, 07	Fremont	Dodge County Ext. Office
Feb. 3	UNL Initial Certification	00, 01, 04, 05, 08, 08W, 10	Grand Island	College Park
Feb. 3	UNL Initial Certification	00, 01, 04, 07, 09, 11, 14	Lincoln	Lancaster County Ext. Office
Feb. 3	UNL Initial Certification	00, 01, 04, 05, 07, 08, 08W, 09, 10, 14	Norfolk	Lifelong Learning Center, NECC
Feb. 3	UNL Initial Certification	00, 01, 03, 05, 09, 14	North Platte	UNL West Central Research Center
Feb. 3	UNL Initial Certification	00, 03, 04, 07, 09	Omaha	Douglas/Sarpy County Extension Office
Feb. 3	UNL Initial Certification	00, 01, 04, 09, 11	Scottsbluff	Panhandle Research Center
Feb. 19	UNL Initial Certification	00, 01, 04, 07, 08, 08W, 10	Lincoln	Lancaster County Ext. Office
Feb. 26	UNL Initial Certification	00, 04, 06, 07, 09, 11, 14	Grand Island	College Park
Feb. 26	**Custom Applicator School**	00, 01	Hastings	Central Community College
Feb. 26	UNL Initial Certification	00, 01, 04, 05, 10, 14	Norfolk	Lifelong Learning Center, NECC
Feb. 26	UNL Initial Certification	00, 04, 07, 08, 08W	North Platte	UNL West Central Research Center
Feb. 26	UNL Initial Certification	00, 04, 05, 07, 08, 08W	Scottsbluff	Panhandle Research Center
Mar. 12	UNL Initial Certification	00, 04, 08, 08W, 14	Omaha	Douglas/Sarpy County Extension Office
Mar. 12	UNL Initial Certification	00, 01, 07, 14	Valentine	Cherry County Extension Office
Mar. 17	UNL Initial Certification	00, 01, 04, 06, 14	Beatrice	Gage County Ext. Office
Mar. 17	UNL Initial Certification	00, 01, 04, 07, 14	Scottsbluff	Panhandle Research Center
Mar. 24	UNL Initial Certification	00, 01, 04, 07	Ogallala	Valentino's
Apr. 9	UNL Initial Certification	00, 04	Lincoln	Lancaster County Ext. Office
Apr. 9	UNL Initial Certification	00, 01, 04	North Platte	UNL West Central Research Center
Apr. 9	UNL Initial Certification	00, 04, 07, 08, 08W	Omaha	Douglas/Sarpy County Extension Office
Apr. 9	UNL Initial Certification	00, 04	Scottsbluff	Panhandle Research Center

To register for all UNL Initial Certification meetings, go to the Pesticide Safety Education Program web site (**pested.unl.edu**).

For the meetings underlined above, registration must be made through the following:

- Ag Expo & Custom Applicator School: Nebraska Agri-Business Assn. (402) 476-1528 (**www.na-ba.com**)
- NATA Convention: (402) 475-6282 (**gonata.net**)

Additional "walk-in" testing opportunities for 2015 will be posted at **bit.ly/NDAPPdates**.

Applicator Categories

1	Ag Plant	8	Structural Health
1a	Soil Fumigation	8W	Wood Destroying Organism
2	Ag Animal	9	Public Health
3	Forest	10	Wood Preservation
4	Ornamental and Turf	11	Fumigation (grain)
5	Aquatic	12	Aerial
5S	Sewer Root *(metam sodium)*	14	Wildlife Damage Control
6	Seed Treatment	REG	Regulatory Subcategory
7	Right-of-Way	D/R	Demonstration/Research Subcategory

Please Post for Future Reference

2015 Recertification/Renewal Meetings
Commercial and Non-Commercial
(No NDA Exams Offered)

Date	Meeting	Categories	City	Location
Jan. 6	**Turf Conference**	00, 04	La Vista	Embassy Suites - La Vista
Jan. 6	**Crop Production Clinic**	00, 01	Gering	Gering Civic Center
Jan. 7	**Crop Production Clinic**	00, 01	North Platte	Sandhills Convention Center
Jan. 8	**Crop Production Clinic**	00, 01	Hastings	Adams County Fairgrounds
Jan. 13	**Crop Production Clinic**	00, 01	Kearney	Younes Conference Center
Jan. 14	**Crop Production Clinic**	00, 01	York	Holthus Convention Center
Jan. 15	**Crop Production Clinic**	00, 01	Beatrice	Beatrice Country Club
Jan. 20	**Crop Production Clinic**	00, 01	Atkinson	Atkinson Community Center
Jan. 21	**Crop Production Clinic**	00, 01	Norfolk	Lifelong Learning Center, NECC
Jan. 22	**Crop Production Clinic**	00, 01	Mead	Saunders County Extension Office
Feb. 17-18	**NATA Convention**	00, 01, 12	Kearney	Ramada Inn
Feb. 5	UNL Recertification	00, 04, 07, 11, 14	Beatrice	Gage County Extension Office
Feb. 5	UNL Recertification	00, 04, 05, 07, 14	Columbus	Platte County Courthouse
Feb. 5	UNL Recertification	00, 04, 07, 08, 08W	Fremont	Dodge County Extension Office
Feb. 5	UNL Recertification	00, 04, 07, 08, 08W, 10, 14	Grand Island	College Park
Feb. 5	UNL Recertification	00, 04, 07, 09	Holdrege	Phelps County Fairgrounds
Feb. 5	UNL Recertification	00, 04, 05, 07, 08, 08W, 11	Lincoln	Lancaster County Extension Office
Feb. 5	UNL Recertification	00, 04, 07, 08, 08W, 10, 11	Norfolk	Lifelong Learning Center, NECC
Feb. 5	UNL Recertification	00, 04, 05, 07, 11, 14	North Platte	UNL West Central Research Center
Feb. 5	UNL Recertification	00, 04, 07, 08, 08W, 09, 11	Omaha	Douglas/Sarpy County Extension Office
Feb. 5	UNL Recertification	00, 04, 07, 08, 14	O'Neill	Holt County Courthouse Annex
Feb. 5	UNL Recertification	00, 04, 07, 08, 08W, 09, 11	Scottsbluff	Panhandle Research Center
Feb. 10-11	**UPMC**	00, 08, 08W, 09, 11	Lincoln	Cornhusker Hotel
Feb. 17	UNL Recertification	00, 04, 05, 07, 08, 08W, 11	Lincoln	Lancaster County Extension Office
Feb. 19	UNL Recertification	00, 04, 05, 07, 08, 08W, 14	Norfolk	Lifelong Learning Center, NECC
Feb. 24	UNL Recertification	00, 04, 07, 09, 11	Beatrice	Gage County Extension Office
Feb. 24	UNL Recertification	00, 04, 07	Dakota City	Farm Services Center
Feb. 24	UNL Recertification	00, 04, 05, 07, 08, 08W, 11	Grand Island	College Park
Feb. 24	UNL Recertification	00, 04, 07, 09, 10, 14	North Platte	UNL West Central Research Center
Feb. 24	UNL Recertification	00, 04, 07, 08, 08W, 09, 11	Omaha	Douglas/Sarpy County Extension Office
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Feb. 26	**Custom Applicator School**	00, 01	Hastings	Central Community College
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Mar. 26	UNL Recertification	00, 04, 07	Ogallala	Valentino's

To register for all UNL Recertification meetings, go to the Pesticide Safety Education Program web site (**pested.unl.edu**).

For the meetings underlined above, registration must be made through the following:
- Crop Production Clinics (**agronomy.unl.edu/cpc**).
- Nebraska Turf Conference: (**www.nebraskaturfgrass.com**)
- Ag Expo: Nebraska Agri-Business Assn. (402) 476-1528 (**www.na-ba.com**)
- NATA (402) 475-6282 (**gonata.net**)
- Urban Pest Mgt Conference (402) 472-6857 (**entomology.unl.edu**)
- Custom Applicator School: Nebraska Agri-Business Assn. (402) 476-1528 (**www.na-ba.com**)

Recertification in the following categories will not be offered via training. See previous page for testing options, or see (**bit.ly/NDAPPdates**) for walk-in testing sites (coming soon).

Exams will need to be taken to recertify in:
• 01a (Soil Fumigation) • 03 (Forest) • 06 (Seed Treatment) • 02 (Ag Animal) • 05S (Sewer Root)

Please Post for Future Reference

Dichlorvos (DDVP)

In June 2014, NDA notified veterinarians across the state of a change to Restricted-Use status in several pesticide products used in animal care. Dichlorvos, also known as DDVP and Vapona, is an organophosphate insecticide often used in nuisance fly control. It is formulated as a liquid for spraying on animals and in farm buildings, feedlots, stockyards, corrals, holding pens, dairy barns, etc. It is also formulated on plastic strips and sold as fly strips and as fumigant strips for bedbug control on mattresses and luggage. Additionally, it is labeled by two companies for use in warehouses, railroad cars, flour mills, and grain handling facilities. EPA recently concluded its registration review of this active ingredient, and has reclassified any product containing 3% or more dichlorvos as a Restricted-Use Pesticide (RUP).

Individuals (including veterinarians) who sell these products need a pesticide dealer's license issued by NDA and must meet record keeping requirements established by the Nebraska Pesticide Act and Regulations (see specific requirements at **bit.ly/NDAPPregs**).

Individuals (such as livestock producers and feedlot personnel) who wish to purchase and/or use these products must have a pesticide applicator's license issued by NDA. Either a private applicator license or a commercial/non-commercial license with the Ag Animal (02) category would meet this requirement. Record keeping requirements for application of RUPs are required for the use of these products.

Persons who wish to purchase and/or use RUP products for warehouses, railcars, and flour mills, need to have a commercial or non-commercial license in the Structural category. Again, RUP record keeping requirements apply.

The full memo, including a list of the products affected, can be seen at **bit.ly/NDAPP063014**.

Thinking Ahead – Label Information From the New Enlist Duo Herbicide

As the number of weed populations resistant to glyphosate has increased, Dow AgroSciences has been developing the Enlist Weed Control System. This new weed control system uses what is called Colex-D technology, which blends glyphosate with a new 2,4-D choline product. The blended formulation, called Enlist Duo, is said to have a very low volatility, minimal potential for physical drift (when applied per label directions), low odor, and have the ability to manage hard-to-control weeds, including those which are glyphosate-resistant.

Enlist Duo will be labeled for use on Enlist field corn, Enlist soybeans, as well as pre-plant, pre-emergent or post-emergence on listed crops. Use of the product will likely be limited in 2015, as its use will be tied to the availability of seed with the Enlist traits.

The label contains a Warning signal word, as well as a precautionary statement that the product causes substantial but temporary eye injury. Some safety issues appear to have been addressed, as the U.S. label requires less personal protective equipment (PPE) than the Canadian label released in early 2014. The product has a 48-hour restricted entry interval (REI).

The sprayer Clean-Out Instructions are very specific on the Enlist Duo label. If the spray equipment is to be used next on a crop other than glyphosate tolerant corn, one should anticipate needing at least an hour to rinse, agitate, circulate, flush, then drain the tank (all part of the first rinse), then fill the tank, add a spray tank cleaner, agitate, flush and drain the tank (parts of second rinse), remove nozzles for separate cleaning, then rinse and drain the tank a third time.

Care will need to be taken when used near crops which lack the Enlist traits. Protecting sites which do not contain the Enlist tolerant (AAD-1, AAD-12) genetics will take some effort. There is a required 30 foot downwind buffer from any site sensitive to the dual formulation.

Since this product is a new tool for dealing with glyphosate-resistant weeds, there is an emphasis on the label to follow resistance management steps. Proper management will be needed to keep this product effective for years to come.

Reminder: Federal Certification for RUPs in Indian Country

Any person who applies restricted-use pesticides (RUPs) in an area of Indian Country covered by the EPA plan will need a federal certificate from EPA, including Tribal members and employees, lease holders, and applicators coming into Indian Country to apply RUPs. In Nebraska, only the Santee Sioux Tribe of Nebraska has a written agreement with the State of Nebraska to accept state certification. See **1.usa.gov/SjJICG** for more information, or contact Doug Jones (**jones.doug@epa.gov,** (913) 551-7592) or Dick Wiechman, (**wiechman.dick@epa.gov**, (402) 437-5080), if you have further questions.

Herbicide Site of Action Tables

These classification tables, where herbicide active ingredients are listed both by site of action and by premix names, are a useful tool for reducing instances of resistance. Repeated use of herbicides with the same site of action can result in the development of herbicide-resistant weed populations. See the charts at **bit.ly/1sD17Rr**. More information, including a web-based and mobile product/ingredient search tool, field management strategies, and weed identification guides, are available at **takeactiononweeds.com**.

Treating Noxious Weeds at the Right Time, Not When You Have Time

Noxious weeds are problematic because they tend to be difficult to control. These non-native plants do not have natural enemies to help keep them in check. Most are prolific seed producers and can survive regardless of weather patterns and conditions. While it may make a person feel good about overdosing a mature musk thistle with herbicide and watching it kink up and turn brown, one needs to ask themself, if they really accomplished anything? These untimely treatments are usually non effective or cost efficient.

All herbicide labels provide information regarding the best time to treat a specific plant. Chemical companies do extensive research to provide the end user with the best control. A herbicide labeled to treat before flowering may not be the best choice once the plant flowers and matures. However, different herbicides act in different ways depending on growth stage or time of year.

It is important to know the target pest and the best growth stage to treat the pest. Some plants respond well to spring treatments, while others might be best suited for summer or fall treatment. Regardless of the noxious weed you plan to control, there are a number of herbicides readily available for treatment. Know the habitat in which the noxious weed is found and study a number of herbicide labels to see which product will work for you and your situation.

Treating noxious weeds at the wrong time will give one limited results. Timing is critical for one to achieve the best results and best bang for your buck. Consistent and timely control will gain good results. Treating noxious weeds just once is not a good approach. Follow-up treatments need to be a part of the overall plan to contain and control targeted weeds. As mentioned earlier, these weeds can produce large amounts of seed and it can take several years to deplete the seed bank that the noxious weed has created.

Questions regarding noxious weed control can be directed to your local County Weed Control Authority. This local office can provide recommendations on herbicides and the best time to treat noxious weeds.

Best Management Practices (BMPs) for Pollinators in Corn

The Pollinator Partnership developed recommendations for pesticide BMPs in specific crops, as part of the national discussion on pollinator and honeybee decline. The following recommendations were put forward for corn:

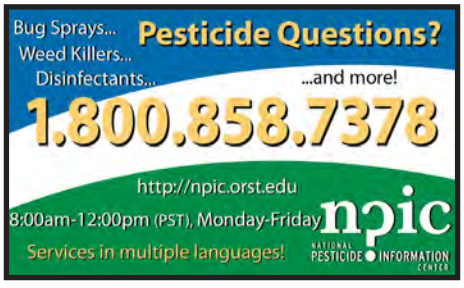
- Follow the principles of Integrated Pest Management;
- Minimize unnecessary use of insecticide-treated seed. Use them only when needed, such as where historic pest infestations are above threshold or high risk factors for pest pressure have been anticipated or determined;
- Control herbaceous flowers blooming in fields prior to planting treated corn seed. This action provides modest benefits to honey bees (but could be significant in regions such as ours where attractive weeds such as henbit are found in fields to be planted with treated seed);
- Instead of using talc lubricants, use drift-reducing lubricants during planting to reduce pesticide-laden dust from treated seed;
- Follow all precautions to reduce dust and drift, especially with respect to wind and weather conditions during corn planting. Bees are attracted to any flowering plants (including trees) blooming at the time the corn is planted. Any vegetation within 50 yards of your planter could receive a dusting of this material, unless you take actions to prevent this; and
- Communicate with beekeepers to ensure that they are aware of planting timing and can take appropriate precautions to protect colonies.

In addition, NDA recommends that all outdoor applicators utilize the services offered in DriftWatch, where pesticide sensitive crops such as beehives can be seen in relation to the spray site (see the DriftWatch article for new features beekeepers may be using). Applicators can also encourage beekeepers and other known sensitive crop growers to register in DriftWatch.

The report, titled Securing Pollinator Health and Crop Protection: Communication and Adoption of Farm Management Techniques in Four Crops, can be found at **pollinator.org/bmp.htm.**

The National Pesticide Information Center

The National Pesticide Information Center (NPIC) provides objective, science-based information about pesticides and pesticide-related topics to enable people to make informed decisions about pesticides and their use. This site contains podcasts, fact sheets, mobile apps and more concerning health and safety, pest control, pesticide ingredients, regulations, and the environment. Visit NPIC at **npic.orst.edu.**



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Web site: **bit.ly/NDAPPnews**

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TDD users can contact the Department by first calling the Nebraska Relay System. Telephone (800) 833-7352 and asking the operator to call (402) 471-2351.

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