



# UNIVERSITY OF ILLINOIS EXTENSION

College of Agricultural, Consumer, and Environmental Sciences

## *Illinois Fruit and Vegetable News*

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Editors: Nathan Johannang & Bronwyn Aly

*A newsletter to provide timely, research-based information that commercial fruit & vegetable growers can apply to benefit their farming operations.*

Address any questions or comments regarding this newsletter to the individual authors listed after each article or to its editors, Nathan Johannang, 618-687-1727, [njohann@illinois.edu](mailto:njohann@illinois.edu) or Bronwyn Aly 618-382-2662, [baly@illinois.edu](mailto:baly@illinois.edu). The *Illinois Fruit and Vegetable News* is available on the web at: <http://ipm.illinois.edu/ifvn/>. To receive email notification of new postings of this newsletter, contact Nathan Johannang at the phone number or email address above.

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### *Upcoming Programs*

Check the **Illinois SARE calendar** for a full list of programs and links for registration.

<http://illinoisare.org/> and <http://illinoisare.org/calendar.php>

Also see the **University of Illinois Extension Local Food Systems and Small Farms Team's website** at:

<http://web.extension.illinois.edu/smallfarm/> and the calendar of events at

<http://web.extension.illinois.edu/units/calendar.cfm?UnitID=629>.

- **Good Agricultural Practices (GAPs) Webinar Series, Tuesdays: July 5 - July 26, 2016 from 6:00 p.m. - 8:00 p.m.** The webinar series is being offered by University of Illinois Extension. Each registered participant will be sent webinar instructions, handouts, and a GAPs manual prior to the first webinar, and webinar instructions before each subsequent session. There is a \$25 fee per participant and pre-registration along with pre-payment is required by June 28, 2016. Please register online at: <https://web.extension.illinois.edu/registration/?RegistrationID=14676> For more information, please call James Theuri, [jtheu50@illinois.edu](mailto:jtheu50@illinois.edu), at Kankakee County Extension Office at 815-933-8337, or Laurie George, [lgeorge@illinois.edu](mailto:lgeorge@illinois.edu), at Jefferson County Extension Office 618-242-0780.
- **Ohio Superberry Field Night, Thursday, July 7, 2016 6:00 p.m. (eastern). Ohio State University South Centers, 1864 Shyville Rd. Piqueton, OH.** Field tour and program all about small fruits! Cost \$15.00. For more information or to register contact Charissa Gardner at [gardner.1148@osu.edu](mailto:gardner.1148@osu.edu) or 740-289-2071 ext. 132.
- **Southern Illinois Summer Twilight Series, 4 Monthly On-Farm Meetings on Mondays, May through August, 6:00 p.m.** For more information or details, contact Bronwyn Aly at 618-382-2662; [baly@illinois.edu](mailto:baly@illinois.edu) or Nathan Johannang at 618-687-1727; [njohann@illinois.edu](mailto:njohann@illinois.edu) Save the dates, more details to follow:
  - **July 18** – Spring Valley Farm, Pulaski, IL
  - **Aug 8** – Grant's Orchard, near Johnston City, IL
- **Illinois Pumpkin Field Day, Wednesday, August 31.** Ewing Demonstration Center, 16132 N. Ewing Rd; Ewing, IL 62836. For more information, contact Nathan Johannang at 618-687-1727 or [njohann@illinois.edu](mailto:njohann@illinois.edu)

## ***Regional Reports***

From north-central Illinois... “It’s dry” is what I’ve been hearing from every grower this week. How dry, depends on your location. Some report spurts of rainfall here and there. Near Dahinda, Illinois in Knox County a brief downpour delivered a half-inch of rain, while the remainder of the county saw nothing. A grower in Quincy, IL reports less than one tenth of an inch of rain for June. Growers are resorting to tank sprayers to irrigate and encourage germination in non-irrigated crops. Many are hoping for rain, but forecast show another week sans moisture (not counting humidity) and temperatures above 90 degrees Fahrenheit. Here in Macomb, we have a 60% chance of rain on Monday, June 20, for about an hour. That won’t be enough. The next rain event is forecasted this weekend. Fingers crossed. Blueberry harvest is in full swing. Blueberries seem to always herald Japanese beetles; both are early this year. Blueberry growers are also debating if they need to roll out the drip tape. Harvest of early season blueberry varieties, such as Duke, have been reported to be coming along nicely. Growers wince as we transition to early, mid-season varieties such as Blueray/Bluejay; saying the fruits are not filling out well and harvest is less than a normal year. Dry soils, combined with shallow-rooted plants, are begging for supplemental irrigation at this point for blueberries. Mulch is also a necessity to hold that soil moisture.

Conversation at a market stand this past weekend yielded a good reminder for blueberry growers, especially any of those new to the game. Avoid fertilizers containing the nitrate form of nitrogen. Instead fertilize blueberries with urea or ammonium sulfate that contain the ammonium form of nitrogen.

Harvest of high tunnel tomatoes and peppers has begun. The heirloom varieties look great and taste like, well...tomatoes! Field harvest has begun on green beans, potatoes, and other summer crops. Spinach and lettuce are bolting, signaling their end; while harvest of other cool season crops wind down or stop. According to the calendar, summer has just started, but everyone agrees the dog-days have been here for several weeks.

*Chris Enroth (309-837-3939; [cenroth@illinois.edu](mailto:cenroth@illinois.edu))*

From southern Illinois ... Hot and dry has been the theme for the past couple of weeks. Other than a few breaks most of our highs have been in the 90s with a couple days in the upper 90s to around 100. The last few days the humidity has been moderate but not excessive which at least for me makes things a little more tolerable when working outside (but still hot!). Wednesday we had the heat, but also the wind which really put the stress to any plants lacking in water. Especially for those on growing on black plastic, keep a close eye on soil moisture as it is going quickly there as well in opened field production. We have not had any substantial rain at Murphysboro or at home on the farm in Monroe Co. in the last few weeks. At the Ewing Demonstration Center we did get a pop up storm about a week ago that gave us 1.1” in a little less than an hour. At the time, we were trying to finish some planting; however, we were happy to get the moisture especially given the condition since. Our heat is supposed to stay with us for a while and we have chances for scattered storms with our next best chance for rain looking to be next week.

The heat has really gotten things growing (so long as water is not limited). The first early peaches varieties are out on the market. Also, summer squash, cucumbers, green beans, sweet corn are not too hard to find. Some raspberries are still holding out but many are not handling the heat and coming to an end. Early blackberry varieties like Kiowa and Natchez are now in harvest. Blueberries are doing well. Early varieties like Duke and Earliblue are nearing the end of harvest and main season varieties like Blueray, Bluecrop and Bluegold are coming in to full harvest. I also started picking a few of my Chandler as well. I have not personally seen any spotted wing drosophila on these fruit yet, but I have been keeping them sprayed weekly to hopefully avoid an infestation. I know last year this is about the time when they appeared fairly widespread. If you grow any of these small fruits, take a look at the article below with more details on SWD management. Also, I dug up a few new Yukon Gold potatoes over the weekend. They are an earlier variety than the Kennebec and Red LaSoda which are still blooming. Pumpkin planting is under way, both direct-seeding and transplanting as well. The end of this week we are going to transplant the pumpkins for pumpkin field day and over the weekend I hope to get my pumpkins out at home as well. All of these plants are going to be no-tilled into wheat stubble. All fields have been sprayed with a burndown and residual herbicides and are ready for the transplanter!

*Nathan Johanning (618-687-1727; [njohann@illinois.edu](mailto:njohann@illinois.edu))*

## ***Fruit Production & Pest Management***

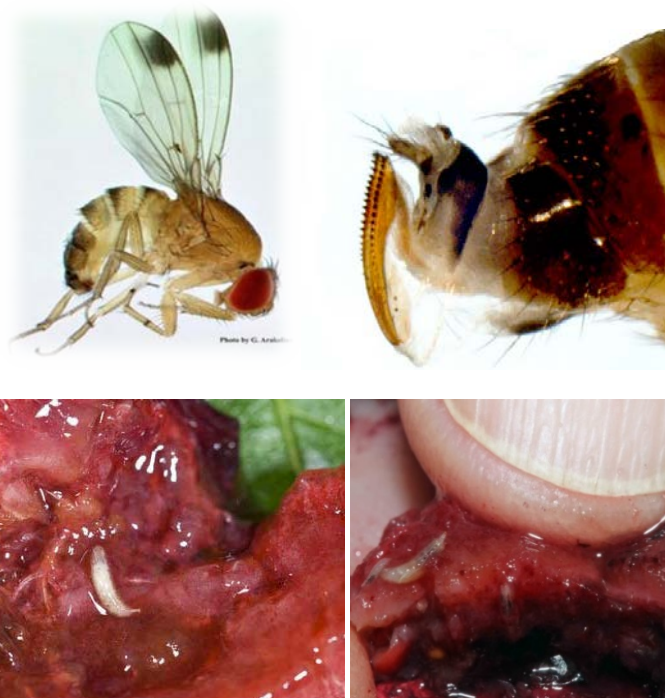
As blackberry and blueberry harvests are underway and peach harvest is just starting, it seems timely to re-run Dr. Weinzierl's article on Spotted Wing *Drosophila* monitoring and control. His article reminds growers that SWD was trapped throughout Illinois last year, and if you had them last year, you will **very likely** have them this year. If you didn't have them last year, you were lucky but you need to be diligent in monitoring this year, and be prepared to take control measures. Newsletter updates from Arkansas indicated that SWD traps had catches starting as early as May 5, 2016. A recent article written by NC State University Extension Specialist, Dr. Hannah Burrack, *Preventing and Managing Spotted Wing Drosophila Infestation*, discusses steps to deal with an infestation including sampling fruit, removal of ripe fruit, sanitation, post-harvest cold storage, and a continued spray program. The complete article can be found on the following link: <https://entomology.ces.ncsu.edu/2016/06/preventing-and-managing-spotted-wing-drosophila-infestation/?src=rss>

Bronwyn Aly (618-382-2662; [baly@illinois.edu](mailto:baly@illinois.edu))

### ***Update on Spotted Wing Drosophila***

Yes, it's still here in 2016, and it will pose a severe threat to production of several fruit crops in Illinois for the foreseeable future. A quick review: SWD was first detected in the US in 2008. It spread rapidly throughout the country and was first recorded in Illinois in 2012. It has been "officially" recorded in counties on the northern and southern tips of the state and in counties on our eastern and western state lines ... I am nearly certain that it is present in all Illinois counties.

Adult male SWD flies have a prominent spot on each wing (hence the name), but the wings of females are not spotted. Females of this species differ from other *Drosophila* species by having an ovipositor (egg-laying organ) that is serrated or saw-like. This characteristic enables them to cut open the "skin" of thin-skinned fruits and lay eggs into them as they begin to ripen. Larvae (maggots) develop with fruits and can be present at harvest; we have collected as many as 50 larvae from a single raspberry that superficially appeared to be just perfect for harvest and sale. It infests a wide range of common fruit crops including blueberries, raspberries, blackberries, peaches, strawberries, cherries, and grapes. We also have reared it from mulberries, elderberries, black currants, Japanese honeysuckle, and pokeweed berries. Infested fruits appear nearly normal at first when larvae are newly hatched and just beginning to feed, but within 36 to 48 hours the fruit begins to "melt down" and collapse, and larvae become clearly visible.



Top: Adult male SWD (left) and ovipositor of female (right). Bottom: SWD larvae in raspberries.

If you grow blueberries, raspberries, blackberries, cherries, peaches, or grapes (or less common fruits such as mulberries, currants, or elderberries), you **MUST** manage this insect unless you plan to eat or sell infested fruit. Where harvest of matted-row or plasticulture strawberries ends before mid- to late June, the crop will likely escape infestation. Similarly, early blueberry varieties may ripen before infestations become common. These escapes occur because numbers of SWD that survive the winter are relatively low, and they appear to become active in mid-June to early July. Populations build up rapidly through the summer (with a little lull in the very hottest weather), and the likelihood of heavy infestations increases through fall. Researchers in the Midwest have captured adult flies in traps into December. SWD flies **DO** enter high tunnels and lay eggs into blackberries, raspberries, and day-neutral strawberries grown in these structures.

A key step in managing SWD is monitoring ... for adult flies and larvae in fruit:

To monitor adult SWD flies, use 1-quart cups with lures and soapy water. You can make traps or buy them ready-to-use from Great Lakes IPM. Some simple instructions for making traps ...

- If you don't want to sort through the soapy liquid in the bottom of the trap, order some sticky yellow cards from [Great Lakes IPM](#) (800-235-0285). Do this first so that they arrive in the mail by the time you've completed steps 2 and 3. See page 22 of the Great Lakes IPM 2016 online catalog ... a package of 25 3" x 5" cards sells for \$8.75. You will cut them in half, so 25 of them will allow you to run 5 traps for 10 weeks. Order a larger number if you need more.
- To make traps, use 1-quart deli cups, preferably clear. (Go to a supermarket with a deli, and if they will not sell you empty containers, buy some potato salad or whatever, and save the container and lid.) Make at least 2 holes near the top of the container so that you can run wire or string through them to hang the containers. Make 8-10 more holes along the side of the container at least 2-3 inches above the bottom ... these will let flies in. The holes should be about the diameter of a number 2 pencil. Use a drill, a paper punch, or a heated metal rod to melt through the plastic. Use a paper clip or a wire to hang half of a yellow sticky card (3" x 2½") from the lid. SWD lures can be purchased from [Great Lakes IPM](#) (800-235-0285). Hang these lures inside the deli cups, and add about 1 inch of soapy water as a drowning agent (make by adding 1 teaspoon of borax plus one drop of unscented dish detergent to a quart of water). You can buy traps already-made if you prefer. Research is ongoing to develop an ideal lure, but the Trecé 2-part lure pictured below is the one I like best so far ... talk with Jim Hansel of [Great Lakes IPM](#) (800-235-0285).
- Hang traps in the shade about waist-high in areas where ripening fruit is present. Check the traps and replace the liquid weekly. Replace the lures every 4 weeks. If you need help identifying specimens, call me or contact me by email for instructions on sending them in – Rick Weinzierl, 217-244-2126, [weinzier@illinois.edu](mailto:weinzier@illinois.edu).
- **Traps provide indications of SWD population levels but do NOT necessarily provide advance warning of the need for your first spray ... in my observations here and in work in nearby states, infested fruit samples have been collected before SWD adults have been trapped in small fruit plantings.** Placing a few traps in adjacent woods may increase the chance of earlier detection, but initiation of sprays or other practices should begin at fruit coloring even if traps have not yet caught SWD adults.



Left: home-made SWD trap; center: close-up of lures and card; right: commercially available SWD trap.



To determine whether or not fruit is infested, immerse a sample of harvested fruit in a fairly high concentration sugar-water solution – 1 cup granulated white sugar per 1 quart water. Within one-half hour (and in fact sooner) larvae will float to the surface. I put berries into small-mesh produce bags and place a washer (weight) on top so that the fruit remains submerged as the larvae float to the surface. The reasons to assess infestations in fruit are two-fold ... one is to determine how effective your control programs have been, and the second more critical reason is to detect infestation before you sell infested fruit to valued customers who did not want to see maggots squirming in it a day later.

So, a summary on monitoring ...

- If SWD was present in 2015, start management with first signs of fruit coloring in susceptible crops in 2016 ... do not wait to catch SWD adults in traps.
- Use traps baited with Trecé 2-part lures. Use yellow sticky cards and soapy water to capture flies. Lures, traps, and cards are available from [Great Lakes IPM](#) (800-235-0285).
- Place some traps in adjacent woods for early detection.
- Assess fruit infestation by immersing fruit in sugar water (1 cup granulated white sugar in 1 quart water) ... larvae will float to the surface.

To prevent infestations or at least limit losses to SWD, a combination of cultural and chemical approaches will be necessary for most growers. Clean picking and frequent picking (and removing damaged fruit) can reduce population buildups within plantings or high tunnels ... not a total solution, but valuable nonetheless. Exclusion by use of screening or fine-mesh netting has been shown to reduce infestations as well. I suspect that other suppliers also provide similar materials, but ProtekNet netting from [Dubois Agrinovation](#) is one (1-800-463-9999). In real-world settings, netting is difficult to use and generally will not completely exclude SWD flies, but in conjunction with insecticide applications to the crop, it can be beneficial (as long as it does not lead to too-high temperatures in the high tunnel or within a frame around a small number of plants).

Post-harvest chilling is also important for SWD control ... or at least for suppressing its growth in harvested fruits. Refrigeration will prevent larval growth and slow fruit breakdown.

Insecticides are needed for effective control of SWD. They should be applied to blueberries, raspberries, blackberries, and similar small fruit crops beginning at the onset of fruit coloring and ripening. Preharvest intervals (PHIs) and recommended application intervals for several insecticides are listed in the table below. Two cautions: (1) Rotate among insecticide modes of action to avoid maximum selection for insecticide resistance (particularly, do not use just Brigade, Danitol, and Mustang Max ... all are pyrethroids). (2) All of these insecticides are at least moderately toxic to bees, and in brambles and strawberries control may be necessary on ripening fruit while later blossoms are still attractive to bees. Where sprays must be applied, use liquid formulations and spray at night when bees are not foraging.

Selected insecticides for SWD control in blueberries, brambles, strawberries, and peaches.

<b>Insecticide</b>	<b>PHI (days) in Blueberries</b>	<b>PHI (days) in Brambles</b>	<b>PHI (days) in Strawberries</b>	<b>PHI (days) in Peaches</b>	<b>Recommended Application Interval</b> <sup>1,2</sup>
Brigade (bifenthrin)	1	3	0	Not labelled	5-7
Danitol (fenprothrin)	3	3	2	3	5-7
Delegate, Radiant (spinetoram)	3	1	1	14	5-7
Entrust (OMRI) (spinosad)	3	1	1	14	3-5

Imidan (phosmet)	3	Not labeled	Not labeled	14	7
Malathion (malathion)	1	1	3	7	3-5
Mustang Max (zeta-cypermethrin)	1	1	Not labeled	14	5-7
Pyganic (OMRI) (pyrethrins)	(12 hours, REI)	(12 hours, REI)	(12 hours, REI)	(12 hours, REI)	1-2

<sup>1</sup> Interval based in part on estimates of residual activity from work done by Rufus Isaacs and in part from observations of effectiveness of spray programs in IL in 2013 and 2014.

<sup>2</sup> Reapplication of insecticides on shorter intervals is recommended following significant rainfall.

Rick Weinzierl (217-621-4957; [raweinzierl@gmail.com](mailto:raweinzierl@gmail.com) for Weinzierl Fruit and Consulting)

## ***Vegetable Production & Pest Management***

### ***New Herbicide for Pumpkins: Reflex***

There is a new preemergence herbicide available for use for Illinois pumpkin growers this season, and I just wanted to share a few notes and reminders. Reflex (fomesafen) has an indemnified 24(c) for Illinois growers (must sign a waiver for use; see below). Reflex brings additional preemergence control of many small seeded broadleaf weeds such as pigweeds, waterhemp, and lambsquarters, common purslane, and nightshades, some additional suppression of morningglories, ragweeds, and some larger seeded weeds and some suppression of annual grasses. Reflex is not necessarily a good stand-alone preemergence product, but it is a very good addition and tank mix partner to our current preemergence arsenal for control of some of our problematic broadleaf weeds, especially waterhemp/pigweeds. Below are a few notes about the use of Reflex on Pumpkins:

- Reflex Herbicide (or any other fomesafen containing herbicide) may only be applied in **ALTERNATE years** in Illinois. Fomesafen is also found in the soybean herbicides Flexstar, Prefix, and equivalent generics. (If you used it in 2016 you cannot apply to any crop until 2018)
- Rate: 0.5 – 1 pt/A applied:
  - **Preemergence broadcast** application after direct seeding pumpkin, but **before crop emergence**
  - OR**
  - **Pre-transplant non-incorporated broadcast** application up to 7 days **prior to transplanting pumpkins.**
- So far crop safety has been good especially on Jack O’ Lantern varieties, some have reported potential for injury to some specialty pumpkin varieties. Injury potential is higher for direct-seeded pumpkins than transplants and also higher on more sandy soils where the herbicide can move through the soil profile more quickly. If direct-seeding, to avoid and reduce injury with **any** PRE herbicide, make sure the seed slot is closed when planting. If you are concerned about injury, try this on a limited area to test performance on your soils and weed spectrum.

Reflex does have an indemnified label so **in order to use this product you have to sign a waiver and get a copy of this supplemental label.** To do this you need to register at [www.farmassist.com](http://www.farmassist.com). After you create a log in go to Products > Indemnified Labels and enter the information as prompted and you will be able to print a copy of the label. If you do not have internet access or someone on the farm that does and you want to use Reflex on pumpkins, contact me and I will try to help out.

Nathan Johanning (618-687-1727; [njohann@illinois.edu](mailto:njohann@illinois.edu))

## ***Atrazine: A Persistent Soil Herbicide That Can Damage Susceptible Plants***

Residues of atrazine herbicide can be carried over to the next season and cause damage to broadleaved horticultural crops. After application, the rate of atrazine degradation is affected by soil type, texture, pH, organic matter content, as well as application rate, timing, and rainfall during the previous season. The simplest test for atrazine presence in soil is by bioassays, that is, sowing quick-growing plant species (like lettuce, beans, or a cucurbit species) in suspected soil, and then observing the developing plants.

Keeping records of activities on the farm can help to avert disasters ... like planting sensitive crops such as cucurbits in an area where soil-applied persistent herbicides (such as atrazine) could be lurking.

In the picture shown, squash that was planted in the beginning of May showed the following symptoms: leaf margins were necrotic (dead), the rest of the leaf was partly chlorotic (yellowish), and there were whitish/ashen, crystal-like spots on the leaves. The grower recalled applying the pre-emergent herbicide atrazine in the patch the previous year. Because no herbicides had been applied since crop emergence, herbicide drift was not suspected to be the reason for damage.



James Theuri (815-933-8337; [jtheu50@illinois.edu](mailto:jtheu50@illinois.edu))

## ***Illinois Farmers Market Price Report***

Weekly price reports from farmers markets across Illinois have seen an increase in the number of crops being reported, which is to be expected as we get into the summer vegetable season. Some of the markets reporting prices this year include but are not limited to: Land of Goshen, Benton Farmers Market, 61<sup>st</sup> Street Market, and Abraham Lincoln Memorial Hospital Market. The pricing reports, including those from previous years, can be accessed from the following link: [http://web.extension.illinois.edu/smallfarm/cat139\\_4465.html](http://web.extension.illinois.edu/smallfarm/cat139_4465.html) This link will take you to the University of Kentucky Center for Crop Diversification website which hosts farmers market and produce auction price reports for KY, TN, and WV as well. Growers are encouraged to utilize this resource to help with marketing and pricing strategies, but remembering that pricing structure should be reflective of each farm's cost of production.

Bronwyn Aly ( 618-382-2662; [baly@illinois.edu](mailto:baly@illinois.edu) )

## ***Beginning Farmer Down-Payment Loan Program***

The Farm Service Agency (FSA) has a special loan program to assist underserved and beginning farmers in purchasing a farm. The Beginning Farmer Down-Payment Loan program is for real estate purchases and cannot be used for the refinancing of real estate already owned. Retiring farmers may also benefit from this program to transfer their land to future farming generations.

A beginning farmer applicant must be actively farming and have been significantly involved in the business operation of a farm for at least three, but no more than ten years. The applicant cannot own more than 30 percent of the average farm size in the county, at the time of application. The applicant must also meet other loan eligibility requirements for the loan program.

The beginning farmer applicant must make a cash down-payment of at least 5 percent of the purchase price. The maximum loan amount from FSA cannot exceed \$300,000 or 45 percent of the lessor of the purchase price or the appraised value. The term of the loan is for 20 years. The interest rate is 4 percent below the Direct Farm Ownership rate, but not lower than 1.5 percent.

The remaining 50 percent of the purchase price will be financed with a participating lender. The joint loan must have an amortization period of at least 30 years and cannot have a balloon payment due within the first 20 years of the loan.

*To apply or find out more, visit your local USDA Service Center. A listing of centers and more information about beginning farmer loans and other loan programs are available on the FSA website at [www.fsa.usda.gov](http://www.fsa.usda.gov).*

## 2016 IDOA Agrichemical Container Recycling Program

The Illinois Department of Agriculture (IDOA) annually cooperates with various segments of the agrichemical industry to operate a plastic pesticide container-recycling program. Single-day collection sites at agrichemical facilities are scheduled near the end of the application season. Pesticide users can bring containers for granulation and shipment to a national contractor that utilizes the plastic for the manufacture of other agrichemical-related products. In addition, IDOA has established permanent collection sites that are open throughout the year for the collection and granulation of plastic containers. Over 1.6 million pounds of plastic have been collected since the program started more than 20 years ago.

### Permanent Collection Sites

Permanent sites in Illinois are able to accept containers throughout the year. Before dropping off containers, please call to ensure the facility will be open

County	Location	City	Contact	Phone #
Greene	Illinois Valley Supply	Carrollton	George Staples	217-942-6991
Lawrence	Klein Flying Service	Lawrenceville	Robert Klein	618-884-1040
McLean	Randolph Ag Service	Heyworth	Brad Hamilton	309-473-3256

### 2016 Single Day Collection Sites

AM indicates collection site hours are **9 a.m. to 11 a.m.** PM indicates collection site hours are **1 p.m. to 3 p.m.**

\*\*\* indicates collection site hours are **8 a.m. to 11 a.m.**

County	Date	Time	Host Facility	City	Contact	Phone #
Pike	7/26	PM	Logan Agri Srv., Inc	Griggsville	Troy Kennedy	217-833-2375
Morgan	7/27	AM	Praireland FS	Jacksonville	Dick Stiltz	217-243-6561
Cass	7/27	PM	Sunrise Ag	Virginia	Mike Schone	217-452-3936
Schuyler	7/28	AM	Praireland FS	Rushville	Aaron Winner	217-322-2024
Hancock	7/28	PM	Chem-Gro	Bowen	Todd Nelson	217-842-5514
McDonough	7/29	AM	CPS	Blandinsville	Travis Weaver	309-652-3694
Mercer	8/1	PM	Gold Star FS	Aledo	Brad Lincoln	309-582-7271
Bureau	8/2	AM	Ag View FS	Buda	Nate Johnson	309-895-3000
Carroll	8/2	PM	Carroll Dservice Co	Milledville	Dave Folk	815-225-7101
Stephenson	8/3	AM	Pearl City Elevator	Dakota	Mark Wells	815-449-2254
Winnebago	8/3	PM	Conserv FS	Rockford	Jeff Baxter	815-963-7669
McHenry	8/4	AM	Conserv FS	Marengo	Allen Burton	815-568-7211
DeKalb	8/4	PM	Helena Chemical Co..	Kirkland	Dan Moore	815-522-3251
LaSalle	8/5	AM	Grainco FS	Lostant	Dave Callan	815-368-3215
Marshall	8/8	PM	Helena Chemical Co.	Toluca	Mark Stange	309-452-2377
Peoria	8/9	AM	Agland FS	Hanna City	Mark Alvey	309-565-4315
Logan	8/9	PM	Agland FS	Lincoln	Eric Long	217-732-3113
Tazewell	8/10	AM	DCM Crop Care	Deer Creek	Dave Howard	309-613-0934
Livingston	8/10	PM	CPS	Saunemin	Steve Schaffer	815-832-4491



County	Date	Time	Host Facility	City	Contact	Phone #
Kankakee	8/11	AM	Chebance Ag	Chebance	Dean Schafer	815-697-2392
Iroquois	8/11	PM	CPS	Onarga	Todd Miller	815-268-4428
Champaign	8/12	AM	United Prairie	Tolono	Ben Rawlins	217-485-6000
Effingham	8/15	PM	Effingham Equity	Montrose	Rodney Schultz	217-342-3123
White	8/16	PM	Brown's Feed & Chemical	Carmi	Greg Brown	618-384-9518
Washington	8/22	PM	Irvington Elevator	Irvington	Steve Seidel	618-249-6206
Randolph	8/23	***	Bockhorn Ag	Sparta	Leslie Bockhorn	618-443-3905
Monroe	8/23	PM	Gateway FS	Waterloo	Jerry Roosevelt	618-282-4000
Clinton	8/24	***	CPS	New Baden	Jeff Haas	618-588-3525
Fayette	8/25	AM	Woolsey Brothers	Vandalia	Herb Woolsey	618-283-1263
Christian	8/25	PM	Effingham Equity	Pana	Rodney Schultz	217-342-3123
Macoupin	8/26	AM	M & M Service	Girard	Dwayne Krager	217-627-2151

## SPONSORS

IDOA sponsors the program in conjunction with the Agriculture Container Recycling Council, GROWMARK, Inc., the Illinois Fertilizer and Chemical Association, Container Services Network, Illinois Farm Bureau, and University of Illinois Extension.

### How do I prepare my pesticide containers for recycling?

Rinsing right after use is the best way to ensure a clean container. Depending on what system fits your operation, you can either triple rinse or pressure rinse your containers. Your local agricultural chemical dealer can give you more information about pressurized rinse systems.

#### Triple Rinsing

1. Fill the empty container about 20% full with water.
2. Replace cap securely and shake the contents to rinse all inside surfaces.
3. Pour rinse water into spray tank and drain for at least 30 seconds.
4. Repeat steps 1-3 twice more until container is clean.
5. Inspect the container (inside and out) for formulation residues. Repeat as needed.

#### Pressure Rinsing

1. Use a special nozzle attached to a water hose.
2. Hold the container upside down over the spray tank with the cap removed. Puncture side of container with the pointed nozzle.
3. Pressurized water cleans the inside surfaces while the rinsate flows into the spray tank.
4. Rinse for 30 seconds or longer while rotating the nozzle to rinse all surfaces.
5. Inspect the container (inside and out) for formulation residues. Repeat as needed.

### Inspection Checklist for recycling plastic pesticide containers:

**PROTECTION:** Always wear protective clothing while rinsing containers.

**EMPTY:** Completely empty the pesticide container.

**CLEAN:** Triple rinse or pressure rinse the container immediately after use to prevent drying/ caking of formulation residues.

**INSPECT:** Inspect the container inside and around the spout threads to ensure that it is free of formulation residues. Clean, but stained (e.g., due to Treflan) containers are acceptable.

**REMOVE:** Discard the cap, foil seal, and label from the container since they will not be accepted for recycling.

**PUNCTURE:** Render the container unusable by puncturing it.

**TYPE:** Only containers made from high density polyethylene (HDPE) #2 plastic are acceptable for recycling.

**KEEP CONTAINER DRY:** The recycler will not accept a container with liquid in it - keep containers out of the rain.

*For more information about the program, call the Illinois Department of Agriculture at 1.800.641.3934*

## *Less seriously*

"A weed is a plant that has mastered every survival skill except for learning how to grow in rows."

- *Doug Larson*

When weeding, the best way to make sure you are removing a weed and not a valuable plant is to pull on it. If it comes out of the ground easily, it is a valuable plant.

What do you get if you divide the circumference of a pumpkin by its diameter?      Pumpkin pi.

"What did the carrot say to the wheat? Lettuce rest, I'm feeling beet."

- *Shel Silverstein*

"Gardening requires lots of water - most of it in the form of perspiration."

- *Lou Erickson*

### **The real meaning of plant catalog terminology:**

"A favorite of birds" means to avoid planting near cars, sidewalks, or clotheslines.

"Zone 5 with protection" is a variation on the phrase "Russian roulette."

"May require support" means your daughter's engineering degree will finally pay off.

"Vigorous" is code for "has a Napoleonic compulsion to take over the world."

"Grandma's Favorite" -- until she discovered free-flowering, disease-resistant hybrids.

"At the end of the row  
I stepped on the toe  
Of an unemployed hoe.  
It rose in offense  
And struck me a blow  
In the seat of my sense.  
It wasn't to blame  
But I called it a name.  
And I must say it dealt  
Me a blow that I felt

Like a malice prepense.  
You may call me a fool,  
But was there a rule  
The weapon should be  
Turned into a tool?  
And what do we see?  
The first tool I step on  
Turned into a weapon."

- Robert Frost, *The Objection to Being Stepped On*

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