



Harmony Valley Farm

An update for our Community Supported Agriculture Members - Since 1993

July 31-August 1, 2015

A Note From Farmer Richard:

"Before we introduce the next topic in our 'Silent Spring Series,' I wanted to interject a comment about this series and our overall goal in publishing these articles. We understand the topics in this series can be of a "depressing nature" and we've received some comments to this point from some members. This series of articles has grown out of our initial interest in preserving pollinators and responding to the White House's National Strategy to Promote the Health of Honey Bees and Other Pollinators. Throughout our research, we are coming to understand that these systemic pesticides, neonics and glyphosate, and GMO crops are having a wide-spread impact resulting in systemic contamination that is impacting our entire ecosystem and food chain. Sarah has fearlessly attacked the research to get to the heart of the matter and we have found this has been quite an education for us in this process.

So, I'd encourage you to please bear with us! Once we understand the extent of this complex problem, there are many positive things that we can all participate in to turn this around. Next week we are hosting a group of visitors representing the Xerces Society as well as federal representatives from NRCS & the USDA who are interested in looking at what we've done to establish pollinator habitats on our farm. Stay tuned!"

Silent Spring #4- Glyphosate-Roundup's Best Friend Part 1

by Sarah Janes Ugoretz

In this fourth article in our Silent Spring series, we turn our attention to glyphosate—the active ingredient in Monsanto's Roundup. We'll start by briefly exploring the development and proliferation of this chemical—primarily through the use of Roundup and genetically modified Roundup Ready seeds. From there, we'll consider the implications glyphosate's use has for human health and, in the subsequent article, for our world's animal life and our environment overall.

In 1974, Monsanto introduced Roundup, a chemical formula anchored by glyphosate that kills weeds by blocking key proteins that are essential to their growth. Today, Roundup is the most commonly used herbicide in the world (Grossman, 2015). Early uses were focused on lawns, recreational spaces and cropland. With the creation and release of Roundup Ready seeds in

This Week's Box

FRESH PORCELAIN GARLIC: If you haven't tried roasted garlic yet, you need to. The roasting process is a near magical transformation that softens and caramelizes the garlic into a gentle, almost sweet flavor. Check out thekitchn.com's tutorial on roasting garlic.

SWEET SPANISH ONIONS: You can use these onions as you would any other onions. Due to their sweetness, they are also delicious when sliced thinly and added to a salad.

BROCCOLI: Broccoli is always delicious when lightly steamed. If you're looking to mix things up a bit, check out the recipe for Cheddar Cheese Broccoli Tots on iamafoodblog.com.

GREEN BEANS: If you don't want to snap your beans by hand, you can use kitchen scissors to trim the ends off quickly. Then head over to smittenkitchen.com for the recipe for Green Beans with Almond Pesto.

ZUCCHINI OR SCALLOP SQUASH: Did you know that you can freeze your zucchini or summer squash? Simply cut it into uniform size slices, blanch for 1-3 minutes and chill quickly in ice water. Drain off excess water and freeze in airtight containers. Keep them toward the back of your freezer where the temperature is more constant. You can toss the frozen slices into soup, stew, chili or a stir-fry for an instant taste of summer.

ORANGE CARROTS: With their thin skins there's no need to peel these carrots. If you don't eat them all right out of the bag, try the recipe for Indian-Style Stir-Fried Spiced Carrots on seriouseats.com.

GOLD POTATOES: New potatoes have thin skins and high moisture content so do not keep as well as more mature potatoes. Keep them in their paper bag in the fridge and use them within a few days. Since they are so tender and sweet, they are wonderful served simply boiled and buttered, and perhaps tossed with a bit of basil.

GREEN BELL PEPPERS: Sliced bell peppers make a wonderful snack. Simply core them and cut them into slices to serve raw with hummus or your favorite dip.

SWEET CORN: There are few things better than summer sweet corn. Boil it, microwave it or grill it for guaranteed deliciousness.

GREEN CURLY KALE: Kale is packed full of vitamins, iron and calcium. It's delicious and easy to cook as it just requires steaming, boiling or stir frying. It is also great added to pasta dishes, risottos, stews and soups. You can use it wherever you may have used spinach or cabbage.

SUN JEWEL OR SWEET SARAH MELONS: Sun Jewel is an oblong, yellow-skinned melon with a crisp, sweet white flesh. Sweet Sarah has a finely netted rind and the flesh is sweet and a typical orange cantaloupe color. Enjoy them as a refreshing snack or cut them up into a fruit salad.

EGGPLANT: See this week's vegetable feature on page 3 for more information.

CHOICE-ITALIAN BASIL: Please take only a small portion of basil for your household. Please limit yourself to a small handful so everyone has the opportunity to take some. We will be offering bulk basil as a produce plus offering again next week!

See the third page for the vegetable feature and recipes.

1996, however, agricultural applications skyrocketed. Using seeds that had been genetically engineered to withstand Roundup, farmers were suddenly able to spray entire fields without the worry of destroying their crops. As a result, today nearly all of the U.S.' corn, soybean and cotton crops are regularly treated with Roundup. Chemically speaking, this translates to over 300 million pounds of Roundup being applied to cropland each year (globally, this number is near the 1.4 billion mark).

As the use of glyphosate has increased dramatically over the last two decades, Grossman (2015) echoes a concern that has long been held by many: we have a

dearth of research that explores what happens once glyphosate is released into the environment. Though Monsanto (2015) maintains that Roundup is "supported by one of the most extensive worldwide human health databases ever compiled on an agricultural product," Leu (2014) makes an astute (and rather obvious) point—one that may be missed by those operating outside of the scientific community. What it comes down to is a convenient designation called commercial-in-confidence. A majority of the studies Monsanto points to as working in its favor are classified as industry studies, which means they are not available for external scientists

and researchers to review and assess. What is even more alarming is that these in-house studies—rather than independent studies published in peer-reviewed journals—are most often utilized by regulatory bodies as they make their safety assessments (Leu, 2014).

Unfortunately for Monsanto and their bedfellows, in March of this year, glyphosate was officially classified as a probable carcinogenic to humans (Reuters, 2015a). Operating under the auspices of the United Nation's International Agency for Research on Cancer (IARC), 17 experts from 11 countries reviewed animal, cell and human studies before reaching their decision. Among these studies were cases in which glyphosate was found in farmworkers' urine and blood, cells were shown to have experienced chromosomal damage, exposed humans demonstrated a higher risk of non-Hodgkin lymphoma and exposed animals were prone to tumor formation (Grossman, 2015). Aaron Blair, a retired National Cancer Institute epidemiologist and chairman of the 17-member team of reviewers, said that the decision to classify glyphosate as a probable carcinogen was unanimous. "All three lines of evidence...said the same thing, which is we ought to be concerned about this" (Pollack, 2015). In lieu of the IARC's findings, the U.S. Environmental Protection Agency, although it has maintained since 1991 that glyphosate is safe, has announced plans to review and revisit its official stance.

Having been officially regarded as a chemical free from safety concerns, the U.S.' regulatory infrastructure surrounding glyphosate is virtually non-existent (Reuters, 2015b). As U.S. Geological Survey hydrologist Paul Capel points out, our country's regulatory practices do not mandate that glyphosate residue be tested for in food or in human blood and tissues. "As a result there is no information on



how much people are exposed to from using it in their yards, living near farms or eating foods from treated fields" (Grossman, 2015).

We do, however, have a growing number of studies to look to that suggest that our concern is justified. As Leu (2014, p. 62) observes, "the regulation of glyphosate is a good example of authorities ignoring an extensive body of published scientific study showing the harm that can be caused by this widely used pesticide." In one peer-reviewed, U.S.-based study, researchers found a strong correlation between a rapid increase in glyphosate use and 22 diseases, including cancers of the kidney, liver, thyroid and bladder and urinary systems (Swanson, Leu, Abrahamson and Wallet, 2014). Another peer-reviewed study found that glyphosate—even at levels that are commonly found in humans—caused estrogen-sensitive human breast cancer cells to multiply at a rate five to thirteen times greater than they normally would in the absence of the chemical (Thongprakaisang, Thiantanawat, Rangkadilok, Suriyo, & Satayavivad, 2013).

Glyphosate has also been detected in human breast milk and is capable of crossing the placental cells (Leu, 2015). One study demonstrated that within 18 hours of exposure, glyphosate had caused damage to human placental cells, even at concentrations lower than those found in commercially available pesticides and herbicides (Richard, Moslemi, Sipahutar, Benachour, & Seralini, 2005). As Hemmelgarn (2015, p. 5) notes: "the chemical industry is quick to tell us not to worry about low levels of contaminants, such as pesticide residues on produce or the BPA that migrates out of food packaging and can linings into our food. However...the chemicals designed by drug companies, such as Ritalin to control hyperactive behavior in children, are active at levels similar to, or even lower than, the levels of toxins found in the blood of children and pregnant women."

Another group of researchers, after studying four different commercial glyphosate formulas, detected breaks in 50 percent of the DNA strands present in the human liver cells of subjects (Gasnier et al., 2009). This damage compromised the DNA's ability to communicate with various physiological systems, including the endocrine system. These breakages occurred at doses of 5 parts per million (ppm). As Hemmelgarn (2015) explains, chemicals like glyphosate are biologically active



at parts per billion (ppb) levels. To give you an idea, 1 ppb is equal to 2 tablespoons of sugar dissolved into an Olympic sized swimming pool.

These findings represent a tiny fraction of the data that is currently available to us—data that has been gathered through transparent, independent scientific studies, with results rigorously reviewed prior to publishing. Despite this, Monsanto, in reacting to the IARC's decision earlier this year, declared that the agency must have "an agenda" against the company and their good work. Vice President Philip Miller stated that designating glyphosate as a probable carcinogen was "starkly at odds with every credible scientific body that has examined glyphosate safety" (Pollack, 2015). Well, I suppose when you have Big Ag and a commercial-in-confidence hand trick on your side, anything becomes possible!

Join us again next week as we turn our attention to glyphosate and its impacts on animal life and the environment.

All article sources may be found on our blog www.harmonyvalleyfarm.blogspot.com

Produce Plus

Produce Plus is a benefit of CSA membership, allowing you to buy some of your favorite items in bulk to put up (can, freeze, preserve) for later use.

Produce Plus Current Offers Sweet Italian Basil, 3 pounds - \$30 Jalapeño Peppers, 5 pounds - \$18

What does one do with 5 pounds of jalapeños? You can freeze them, pickle them, or make jalapeño poppers! This would be a great snack for your next party!

Twin Cities -order by 5pm on Monday, August 3rd for delivery on **August 6th.**

To order, please call 608-483-2143 x2 or email

csa@harmonyvalleyfarm.com

Please drop your check in the mail the same day that you place your order.

Please be sure to include your name, telephone number and pick-up location with your order!

**See the third page for the vegetable feature and recipes.
Available on our blog at www.harmonyvalleyfarm.blogspot.com or on our website**

Vegetable Feature: Eggplant

by Beth Brown-Lucas

August is upon us and that means it's that time of year already-eggplant season! A member of the nightshade family, eggplant was once considered poisonous when introduced in Europe. Thankfully, those perceptions have changed and we now recognize eggplant for the culinary gem that it is. The eggplant varieties we grow are particularly delicious and have firm flesh that holds its firmness after both picking and cooking. Growing eggplant can be challenging, so we plant our eggplant in double rows on reflective mulch to combat the Colorado Potato Beetle and the flea beetle. The reflection from the silver plastic disorients the pests and deters them from the plant.

Eggplant contains fiber, potassium, Vitamins B1 and B6, folate and magnesium. By itself, it is very low in calories. Eggplant should always be cooked, thus giving it a soft, creamy, silky texture and a mild taste. While many culinary sources will warn you to salt eggplant in advance to take away its bitterness, this step isn't necessary with the varieties we grow. Old varieties do have some bitterness in the seeds and flesh, but newer varieties have been developed and do not have this trait. Eggplant is thought to have originated in India & China, but has since been spread around the world. You will find a wide variety of ways to utilize eggplant from Indian dishes to curries, glazed with miso or fried & topped with marinara.

When it comes to cooking eggplant, there is no shortage of ways to enjoy it! Eggplant is wonderful when it's grilled, braised, baked or cooked and pureed into a dip. In your box this week, you will find either Lilac Bride, Listada, Black or Purple Dancer varieties. Our Lilac Bride eggplant is perfect for slicing and including in a stir-fry. Listada is an Italian heirloom variety that can be used for grilling, roasting or stewing. Of course there is also the traditional Black Globe eggplant that shines in traditional recipes such as baba ganoush, eggplant Parmesan and moussaka. Purple Dancer is one of our favorite varieties because it produces very well, has a creamy white flavorful flesh and is an "all-purpose" type of eggplant. Visit our blog at harmonyvalleyfarm.blogspot.com for photos to help you identify which variety of eggplant is in your box this week.

Its flesh is very good at soaking up whatever you pair it with, like cream, olive oil or marinara sauce in your Eggplant Parmesan. Check out the delicious recipes featured in this newsletter for more ideas. Store your eggplant on your counter at room temperature and use within a few days. Eggplant is very susceptible to chill injury and should never be stored in the refrigerator.

Sweet & Sour Eggplant Salad

"Eggplant takes on a soft, almost melting, texture when cooked slowly in a pan. Though I usually don't peel eggplant, I do here just to emphasize that silky quality. Spoon this piquant salad onto crackers or bread, and serve it with good cheese and a bowl of olives."

—Domenica Marchetti, *The Glorious Vegetables of Italy*

Serves 8-10

½ cup extra-virgin olive oil

1 garlic clove, sliced paper-thin

2 medium eggplants (about 1 ½ pounds), peeled and cut into ½ inch dice

½ to 1 tsp salt

3 tsp balsamic vinegar

1 Tbsp minced fresh herbs (mix of basil, mint, oregano or other as available)

Crostini or Sliced bread, for serving

Pecorino Romano Cheese (or other hard cheese variety), for serving

1. In a large skillet, heat the oil and garlic over medium-low heat. Cook, stirring frequently, for 7 to 8 minutes or until the garlic is soft and translucent but not browned. Add the eggplant and ½ tsp salt and stir well to coat the eggplant with the oil. Cook, stirring occasionally, for 10 minutes or until the eggplant is just tender and cooked through, but not mushy.
2. Spoon the eggplant, along with the garlic slices and any juices, into a bowl. Sprinkle in the vinegar and herbs and toss gently to combine. Taste and add more salt if you like. Cover and let the eggplant sit for at least 30 minutes, preferably longer, before serving.
3. Serve the eggplant salad on top of the crostini and top with shavings of the cheese.

Eggplant Fritters

Recipe borrowed from Mark Bittman's book, *The Best Recipes in the World*.

Serves 6

1 ½ pounds eggplant

Salt

1 egg

½ cup fresh parsley leaves

½ cup freshly grated Parmesan cheese

1 garlic clove, peeled

Pinch of cayenne pepper

½ cup bread crumbs, or flour

Corn, grapeseed, or other neutral oil for frying

Lemon wedges, for serving

1. Trim and peel the eggplant and cut it into 1-inch cubes.
2. Set a large pot of water to boil. Blanch the eggplant in the boiling water for about 5 minutes or until soft. Drain in a colander, pressing to get rid of as much moisture as possible.
3. Combine the eggplant in a food processor with the egg, parsley, Parmesan, garlic and cayenne and process until smooth. Pulse in enough bread crumbs or flour to make a batter that will hold together.
4. Put enough oil in a large nonstick skillet to coat the bottom to a depth of about ¼ inch. Turn the heat to medium-high and wait until the oil is hot; when it's ready, a pinch of flour will sizzle. Carefully drop the batter from a spoon, as you would pancake batter, and cook until nicely browned on both sides. Do not crowd the fritters, and adjust the heat as necessary so they brown without burning. Total cooking time per pancake will be about 6 minutes. Serve hot or warm, with lemon wedges.