Harmony Valley Farm

An update for our Community Supported Agriculture Members - Since 1993

May 29-30, 2015

Silent Spring: Part 1

By Sarah Janes Ugoretz

On May 19, the White House released the *National Strategy to Promote the Health of Honey Bees and Other Pollinators*, a move that has been regarded by many as a groundbreaking step towards acknowledging and mobilizing action around rapidly declining pollinator populations within North America. The importance of setting a national strategy to guide the protection, restoration, and enhancement of pollinator habitats is largely undisputed among scientists and others operating within conservation circles. However, critics have drawn attention to a selection of key considerations that appear to have been left out of the national plan. Primarily, questions surrounding pesticide use—including that of glyphosate (more commonly known as Roundup) and systemic insecticides like neonicotinoids, which have been directly linked to the decline of bee and other wildlife populations—and pesticide mitigation strategies remain untouched.

This week marks the beginning of a new series in which we will consider the implications that these and other agricultural inputs have had on our environment and the life it supports, examining not only the plight of our crucial pollinator populations, but also that of a variety of other beneficial members of our ecosystem, such as songbirds, moths, butterflies, and insects. Along the way, we will also consider what these inputs mean for human health. In this first article, we begin by looking at pollinators and other "beneficials," exploring their services and ultimately addressing why we should be concerned about their imperilment. The second and third articles will consider wildlife habitats and the implications wrought by the use of neonicotinoids and glyphosate. Throughout this discussion, we will bring in existing research on these inputs--focusing on a selection of both American and European-led studies. Safety trials and testing will be the focus of the fourth article. After considering the U.S.'s tendency to forego basing its actions on the precautionary principle, we'll also discuss the extent to which the environmental and health implications of neonicotinoids and glyphosate have been scrutinized. Lastly, in the fifth and final article, we'll bring everything together and consider the numerous short- and long-term obstacles our North American pollinator and other wildlife populations are facing, as well as examples of localized action (such as Portland's City Council's recent success in passing an ordinance banning the use of neonicotinoids) aimed at protecting these vital members of the earth's environment. By the end of this series, it is our hope that we will have contributed in some way to your understanding of this most pressing issue.

This Week's Box

GREEN GARLIC: You can eat both the white bulb and the green tops on this young garlic. Mince it finely and add it to meatballs, scrambled eggs, or taco meat.

POTATO ONIONS: Potato onions are named such because they multiply like a potato, not because they taste like a potato….although they taste great with potatoes! Use the top and bottom of the onion as you would use any green onion or scallion.

SPINACH: Wilt down your spinach and use it to make a creamy spinach dip seasoned with green garlic and potato onions.

SAUTÉ MIX: Lightly sauté along with fresh asparagus, green garlic and onions. Cool to room temperature and add to cooked quinoa along with a sesame-soy vinaigrette. It makes a tasty salad that's even better the next day.

ASPARAGUS: Wrap asparagus spears in pancetta or bacon and bake until the asparagus is tender and the meat is crispy.

RHUBARB: Make a rhubarb chutney to eat alongside Indian dishes or spread it on a sandwich along with a salty meat, sharp cheese and fresh greens.

RED RADISHES: These little red beauties are a great accompaniment for many dishes including salads, fish tacos, soup, etc.

HON TSAI TAI: This is the bunched green in your box with purplish stems and it may have yellow flowers as well. Hon Tsai Tai is delicious when lightly sautéed or added to a stir-fry, but it can also be eaten as a raw salad green. The flowers are edible too, so don't discard them!

PEA VINE: See this week's vegetable feature for more details.

BABY WHITE TURNIPS: You'll find these pretty little turnips to be mild, sweet & tender. They are a great salad item or can be lightly sautéed. The green tops are also tender & mild and can be lightly wilted or steamed or added to a salad.

HERB PACKS: There's nothing like cutting fresh herbs right from your own garden. We thought we'd help you out and started a selection of eight different common culinary herbs. They are ready to be transplanted into your garden or into pots for your patio or windowsill. Hopefully we're past the last touches of frost, but if the temperatures do drop into the 30's again you should cover your plants. Basil is the most susceptible to frost damage and should be kept inside or covered if temperatures drop below 45-50 degrees. Refer to the diagram below for identifying your plants

Rosemary	Winter Thyme	Winter Savory
Greek Oregano	Sage	Italian Parsley
Basil	Basil	Curly Parsley

The Xerces Society for Invertebrate Conservation recognizes pollinators as "an essential part of both productive agriculture and a healthy environment," and researchers have consistently estimated that two-thirds of the world's crops depend upon animals for pollination services. Following their initial undertakings in the 1980s (see Southwick and Southwick), efforts aimed at measuring the economic value attached to pollinators have advanced tremendously, resulting in the development of dynamic, highly sophisticated models. Though estimates vary from source to source, researchers largely agree that the annual economic contribution of pollination services measures in the billions. According to the Office of Science and Technology, for example, pollination services provided by honey bees alone contribute an average of US$15 billion in value to agricultural crops each year. Earlier research by Roubik, however, who examined the pollinators of 1,509 cultivated plant species, found that while bees were involved in the pollination of 72.2% of those plant species surveyed, the honey bee only contributed pollination services to 15.5%. This finding suggests that taking into account the pollination services provided by the entire population of native and non-native bees—not just honey bees—would yield a number much larger than US $15 billion.

In addition to pollination, bees and other wildlife provide an array of beneficial services to the environment and, by extension, to humans. As Nabhan and Buchmann have noted, over the course of any given day these members of our ecosystem "collect and redistribute foodstuffs, then scatter their nitrogen-rich waste products" over the landscape. Insects in particular play a critical role in the biogeochemical cycling of these and other nutrients--aerating the soil, improving tilth, and enhancing water retention capacities. Dung beetles, for instance, have been introduced into agricultural landscapes across parts of Hawaii, Australia, and the southern U.S. due to their valuable contributions to manure decomposition. Meanwhile, bats and birds provide seed dispersal services while also

acting as population regulators, consuming multitudes of insects that are often considered pests. Bats in particular have gained an increasing amount of recognition for these services, as interesting research has emerged from the University of Michigan detailing the huge benefit they have had on organic coffee reservations in Mexico. Taking advantage of what is essentially a free service, Harmony Valley Farm maintains a woody barrier of willows in between many of our fields. These willows provide—among other things—a habitat for birds, which then assist us in managing flea beetles and other common agricultural pests. The Xerces Society reports that such integrated pest management techniques have been given a combined value of US $4.5 billion per year. And finally (but by no means exhaustively) these animals also serve as integral parts of various cultures, work to control erosion and regulate climate, and offer myriad opportunities for recreational activities (see Wojcik).

While we could write volumes about the importance of these beneficial creatures, this should serve as a basic outline of their crucial role within our food system and within the environment more broadly. As Moisset and Buchmann so poignantly remark, the world we know would cease to exist if it weren't for the services pollinators and other animals provide. However, many of these invaluable members of the earth's ecosystem are facing threats at an increasing and expanding rate. Last year alone, beekeepers throughout the U.S. reported losing approximately 40% of their colonies, and in the last 20 years, the North American monarch population has declined by 90%. As Nabham and Buchmann caution, without critically examining and changing our management practices, "we will lose both economically...and ecologically valuable interactions between plants and animals, some of which have taken millennia to develop." In our next article, we will begin to unpack a few of these management practices that are referred to above—beginning with the emergence, application, and subsequent implications of neonicotinoids on the environment and on wildlife habitat specifically.

Article sources are available on our blog: www.harmonyvalleyfarm.blogspot.com.

Vegetable Feature: Pea Vine

by Andrea Yoder

Pea vine is actually just an immature pea plant that we harvest before it starts to make blossoms. As an immature plant its greens are edible and have a delicious, mild sweet pea flavor. Pea vine can be eaten raw as a salad ingredient or can be lightly sautéed, wilted into soups or stir-fried. While the tendrils and leaves are tender, the main stem can sometimes get tough depending on how big the plant is at harvest. Unfortunately, Richard and I disagree every year as to when the pea vine should be harvested. I argue that we should harvest it when the stems are short & tender. Richard argues that we should let it get a little bit bigger and if some of the lower stems start to get a little bit tough and woody, just sort them out. Well, I agree that I prefer a generous bunch of pea vine, but I really don't enjoy sorting out the tough stems.

Well, this year I did some more careful evaluation and I actually have to admit that I've finally found a reason to agree with Richard that we should let the pea vine get a bit more mature. The flavor is actually better when the plant is a bit more mature! Flavor almost always wins out in my book, so now I just have to figure out how to work with the plant so the stems don't drive me crazy! My solution has been to find ways to incorporate pea vine into dishes that can be blended. This way you can add the entire plant and chop it up finely to extract all the delicious flavor! You can leave the blended pea vine in whatever dish you are preparing if you don't mind a little fiber and the fact that it will slightly thicken your dish. If you prefer something smooth, you could also strain it out. Using this method, you can make very tasty soups, sauces, or pea vine pesto.

So this year, Richard and I have finally come to an agreement as to when we will harvest the pea vine. If you haven't been a fan of pea vine previously, I'd encourage you to give it a try with the blender by your side to assist. It's worth the little bit of effort to be able to enjoy the delicious pea flavor packed in this green!

Fettuccine with Pea Vine Cream Sauce

by Andrea Yoder

Serves 4-6
12 ounces fettuccine noodles
1 Tbsp olive oil
1-2 pieces green garlic, green top & bulb minced (about ⅓ cup)
3-4 green onions, green top & bulb minced (about ⅔ cup)
½ cup white wine
2 ½ cups half & half
4-6 cups (1 bunch) pea vine, roughly chopped
¼ pound asparagus, cut into bite-sized pieces or smaller
Zest of 1 lemon
Salt, to taste
Freshly ground black pepper, to taste

1. Prepare a pot of salted boiling water and cook the fettuccine according to the package instructions. Drain the fettuccine into a colander, reserving about 1-2 cups of the cooking liquid. Set aside the cooking liquid and fettuccine until you are ready to add it to the sauce.
2. Heat olive oil over medium heat. Add green garlic & onion and sauté for about 1 minute. Add the white wine and simmer until nearly all the wine is gone. Add the half & half and reduce the total volume by half by simmering over medium-low heat. Do not let the mixture boil or it will separate and curdle. If this does happen, don't despair. You can usually whisk the lumps out, or you'll take care of them when you blend the sauce. Season the cream mixture with salt and black pepper.
3. While the cream mixture is reducing, prepare the pea vine. Sort out any damaged leaves and trim off the bottom ½-1 inch of the stem. Rough chop the pea vine into about 1-inch pieces. Once the cream mixture has reduced by half, add the pea vine, cover and allow the pea vine to wilt into the cream, which will only take a few minutes.
4. Once the pea vine is wilted, remove the sauce from the heat. Carefully transfer the sauce to a blender and puree the mixture until the pea vine is completely chopped up. Carefully pour the cream mixture back into the pan and return it to the stove top over medium-low heat.
5. Add the asparagus and lemon zest and simmer just until the asparagus is starting to get tender but is not completely cooked. Add the fettuccine to the pan and stir to combine. You want the sauce to lightly coat the pasta. If the sauce is a little too thin, continue to cook the pasta in the sauce for a few more minutes. If the sauce is too thick, thin it out by adding a little bit of the pasta liquid until the sauce is the desired consistency. Taste the pasta and sauce and add salt and pepper to your liking.
6. Serve hot. While it's delicious just as it is, you could also serve it with a bit of freshly grated Parmesan on top or a sprinkle of crumbled cooked bacon. This dish is also delicious when served with grilled shrimp or chicken on top or with a piece of sautéed fish.

*Note: If you want a completely smooth sauce, you can strain the sauce before returning it to the pan. However, if you have a good blender, you should be able to blend the pea vine into very small pieces that will actually thicken the sauce. I do not enjoy cleaning the strainer and prefer to keep the fiber in the food, thus I usually do not strain the sauce.