



Illinois Agriculture goes far beyond corn and soybeans. Illinois has good soil and a favorable climate, among other factors, making the state a top grower of several specialty crops as well. Many people don't realize that crops like pumpkins, peaches, apples, horseradish and melons are grown on Illinois farmland. In fact, more than 3,200 Illinois farms grew specialty crops in 2014.



The climate and geography of Illinois both challenge and benefit farmers across the state. On any given day, the weather and conditions in one part of the state may differ greatly from those in another part. This is one big reason why such a wide variety of grains and produce can be grown in Illinois successfully. Featured in these pages are just a few of the crops you may find being planted, harvested or consumed throughout the different seasons.





Spring



Nursery Operations and Turf

In agriculture, a nursery is a place, usually outside, where young plants and trees are grown for planting elsewhere. People often depend on nurseries for the turf, shrubs, trees, and flowers used for landscaping yards and parks. Operating a nursery is a full time job, though people most often look to nurseries in spring, when the plants can be transplanted without the fear of frost.



When you stand in the outfield for your championship baseball game, or chip a shot onto the green during a round of golf, you are surrounded by turf. Turf is the layer of grasses and roots that covers parts of the Earth. Different types of turf naturally grow in different areas.

However, people sometimes want to make sure they have a specific grass for their playing field or their front lawn. This is where professionals in turf management help.

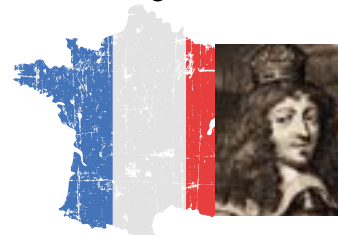
Turf management professionals grow and maintain grasses, sometimes called sod, to place in specific areas for specific needs. They are also responsible for taking care of the turf to make sure it stays the right color, and length for a customer.

Asparagus

Asparagus is one of the first crops harvested in the spring. It grows wild in areas all around the United States but was also grown on 114 different farms in Illinois in 2014. Asparagus is available in three colors: green, white, and purple. White asparagus is kept buried to keep it from the sun, otherwise it will turn green as well. Purple asparagus is a different plant variety, but will turn green when cooked.



Asparagus is harvested in the late spring or early summer. If you want to plant asparagus in your home garden, be patient when it comes to harvesting. For the first few years, harvest the spears sparingly to allow the root system to grow.



France's King Louis XIV (1638-1715) loved asparagus so much he called it "The King of Vegetables."

Onion Sets

Onions are grown commercially in more than 20 states including Illinois. The National Onion Association estimates less than 1,000 growers produce onions commercially in the U.S. These growers plant around 125,000 acres of onions each year and produce about 6.2 billion pounds per year. Onions can be fresh-cut or processed for retail or food service. Food companies use pre-cut products in prepared food items like soups, sauces, salsa and appetizers like onion rings.

What's so great about onions? Well, they are high in vitamin C, a good source of fiber, only have 45 calories per serving, and add flavor to a wide variety of food. They are sodium, fat, and cholesterol free.

Research and see if you can find an onion farm in Illinois! American onion consumption has risen from 12.2 pounds per person in 1982 to 20 pounds per person in 2010.



Aww, don't cry!

Did you know that the sulfuric compounds in onions are what bring tears to your eyes? To cut down on the tears, chill the onion and cut into the root end last.



Career Corner

Paxton Morse
Illinois Association FFA
State Vice-President – 2016-2017
Eldorado, IL



Briefly describe your Supervised Agricultural Experience (SAE) project?

Throughout high school I completed an SAE on Turf Grass management. I mowed, weeded and tended seven to ten yards per week. I also planted shrubs and flowers around houses and in the downtown area of my community all summer. When fall hit, I continued to mow the lawns as needed, rake leaves, and remove sticks from the yards I looked after. During the winter, I shoveled snow and grew flowers for the spring and summer.

What did you enjoy most about your SAE experience and what did you learn?

I learned there are many different types of grass. There are also many different types of blades for the mowers and different ways to sharpen them to achieve a different look. The best part of my SAE was looking at a yard after it had been freshly mowed.

For others interested in grass management, what are some ways that one might gain experience?

Others interested in grass management can gain experience by mowing their own lawn. It's actually quite relaxing. Then think about expanding and mowing a neighbor's lawn or others in the community. Before you know it you'll be thinking about how it could be expanded into a business opportunity.

What careers involve turf grass and what might one study in school to be successful in the field?

You could study math, science, business and design classes like landscaping or mechanics. You could eventually take on a career as a golf course superintendent or a sod farmer.



Floriculture

Floriculture is a special area of farming. Floriculture farmers grow flowers or other decorative plants. In 2014, Illinois had over 220 farmers participating in floriculture which ranks Illinois as one of the 15 major flower producing states. Floriculture takes place in a variety of different settings from open ground to fiberglass greenhouses. This way, floriculture takes place all year long. See page 10 to learn more about a popular winter flower, the Poinsettia!



Melons

Many argue the key to growing melons like watermelon, cantaloupe and honeydew is plenty of moisture, sunlight, and heat. Since melons demand two to three months of heat, growth in northern regions becomes challenging, but not impossible. Most commercial melon growers in Illinois are located in the southern half of the state because of the warmer temperature and longer growing season.



When should you plant? Plant after the soil is warm and when all danger of frost is past. They grow best in sandy soil. Be sure to remove nearby weeds before vines start to run. This becomes much more difficult to accomplish later without injuring the vines.

Melons typically ripen over a short period of time. As soon as one ripens, the others won't be far behind. About a week before a melon is ripe, minimize watering. Provide just enough water to keep vines from wilting. This allows the vines to concentrate sugars in the fruit. A ripe melon should slip right off the vine. Store the melons in the refrigerator for up to a week. If you have extra on hand, cut them up and freeze them. Most importantly – Enjoy!

Find specialty crop producers near you at:
SpecialtyGrowers.org/prairie-bounty.html





Sweet Corn

Sweet corn is a warm season vegetable crop with high sugar content. Standard sweet corn contains a sugary gene responsible for the sweetness, as well as the creamy texture of the kernel.

So, besides the sweetness, how is sweet corn different from field corn? Sweet corn is harvested during the "milk stage," when the kernels are fully formed, but not yet mature. The milk stage occurs 20 days after the appearance of the first silk strands, and lasts for less than one week. With the hot weather during the summer months, the sugar in sweet corn decreases and the starch increases, causing the corn to lose flavor, quality and sweetness quickly. This is why sweet corn is checked frequently as harvest approaches, and should be eaten, refrigerated or processed shortly after picking. Field corn, or dent corn, however is a grain. The kernels on this type of corn are allowed to mature and dry before harvest. This corn is used for livestock feed and ethanol production.

Several hundred varieties of sweet corn are available.



Tomatoes

According to the University of Illinois Extension, the tomato is the most popular garden vegetable in America today! Scientifically, the tomato is known as a fruit because it bares seeds. The fruit is easy to grow, and most families obtain an adequate harvest from just a few plants. The tomato plant is tender and is grown in gardens all over the continental United States. However, Illinois' freezing weather during the spring and fall months, limit the outdoor growing season.

Just like apples, there are many different types of tomatoes. In fact, hundreds of varieties are available to grow in the comforts of your own garden. The different varieties range in size, shape, color, plant type, disease resistance and season of maturity.

According to the USDA, Americans eat between 22-24 pounds of tomatoes per person, per year.



Peaches

Did you know that peaches are grown in Illinois? Not all fruit will grow well in Illinois. This is because extreme winter weather will limit the growing conditions. Be sure to do your homework when planning fruit tree planting. Crops such as peaches, nectarines, and sweet cherries will suffer when grown in northern Illinois but can perform well in the central and southern parts of the state because of the warmer temperature and longer growing season. All tree fruit crops prefer full sunlight, but can grow in partial shade, although it may produce slightly lower quality fruit. Ensure the soil is well-drained and the terrain slightly raised so cool air can drain and avoid frost damage as much as possible.

A large peach has fewer than 70 calories and contains 3 grams of fiber. It's also a good source of vitamins A and C.



Career corner

Audra and Chris Wyant
Finding Eminence Farm
Lexington, IL



Tell us a little bit about your business.

Finding Eminence Farm is a three-acre farm located near Lexington, IL. We grow a wide variety of cut flowers (the type of flowers used in flower arrangements) and vegetables. We have been growing since March 2015.

What types of flowers, or other plants do you grow?

We grow dahlias, zinnias, sunflowers, gomphrena, statice, cosmos, calendula, ammi majus, celosia, frosted explosion, and sweet annie, to name a few. We also grow a lot of vegetables, such as tomatoes, zucchini, squash, peppers, green beans, sweet corn, and more.

What kind of work goes into growing and selling flowers?

Growing flowers takes a lot of work and patience. As much as we plan and nurture our plants, Mother Nature is ultimately in control. We are up very early picking flowers because you can't pick flowers during the heat of the day or they will wilt. And we are in the field until the sun goes down weeding, watering, picking, and seeding all summer long. We work long, hard hours.

What is something people might not know about floriculture or flowers in general?

We became interested in floriculture because the flowers that most grocery stores and florists sell are grown in different countries and shipped long distances before they reach the consumer. By the time consumers buy them, they just aren't able to last very long in the vase. Most of the flowers we grow can't be shipped like other flowers because they are fragile, but they are more unique and last longer than flowers grown across the globe.

What is the best part of your job?

The best part of the job is arranging the flowers, making them even more beautiful. It's fun to pick a color scheme and shape and create an arrangement from everything we grow.



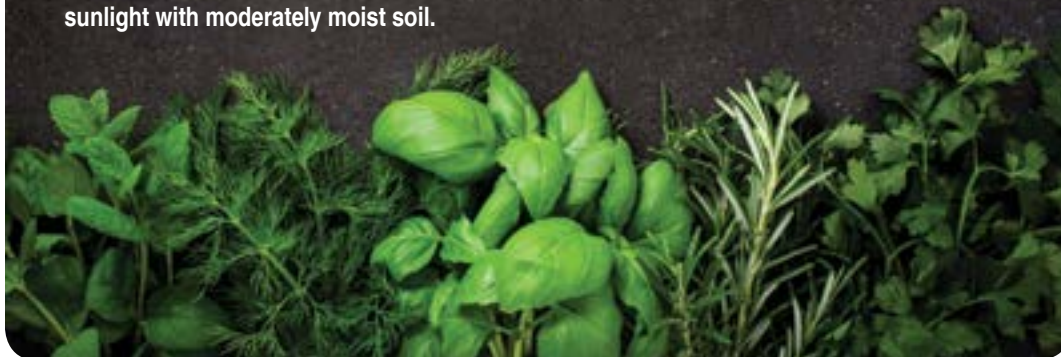
Herbs



The most popular herbs are the types used in cooking. Basil, chives, dill, mint, oregano, parsley, rosemary, sage and thyme are a few of the many herbs grown in Illinois. Herbs are used to enhance even the simplest of meals because of their scent and taste.

Herbs require little care and space, making them easy to grow. Herbs also have minimal insect and disease problems and can be grown in moderate fertility levels. Another reason for their popularity is they are great indoor plants, making them easy to grow in pots all year long.

To try growing your own, make sure the location you choose has around 4 to 6 hours of sunlight with moderately moist soil.



Dill is used for more than pickles. Did you know it was known as a medicinal herb to the ancient Greeks and Romans? They used the herb to treat congestion because of its soothing properties.



Horseradish



Horseradish is a root that is harvested in the spring and fall. Its flavor is very distinguishable and a favorite to many. In America, about 24 million pounds of roots are processed each year to yield 6 million gallons of horseradish. Illinois is said to produce 85% of the world's horseradish, giving Collinsville the self-proclaimed nickname: "Horseradish Capital of the World." Every first weekend in June, the International Horseradish Festival is held in Collinsville, Illinois.





Pumpkins

Illinois grows more pumpkins than any other state in the country. In fact, Illinois grows 90-95% of the pumpkins used for processing. Most of the processing takes place in Morton, Illinois: "The Pumpkin Capital of the World." Illinois celebrates pumpkins during the months of September and October through a wide variety of activities all over the state. Some of these activities include petting zoos, corn mazes, shops and food. Find a pumpkin farm near you by visiting: www.urbanext.uiuc.edu/pumpkins/pumpkinfarms.cfm. Be sure to check out the Pumpkin Ag Mag to learn more!





Fall

Pumpkin – In a Pumpkin!

Cut open a small pumpkin and core it out. Add soil and plant some of the seeds into the soil. Add water and place near sunlight. After sprouting, plant outside your classroom and watch it grow!



Sweet Potatoes

Only distantly related to the common potato, the sweet potato remains an annual fall and holiday favorite. Though it has carved its place into many families' Thanksgiving dinners, the original sweet potato is native to the tropical regions of Central and South America. This starchy root requires a long warm growing season. In Illinois, this means that the sweet potato is not planted until May, and harvest is held off until the first frost of autumn.

The sweet potato gets its orange flesh from beta-carotene which, when eaten, is good for your vision while also helping your body fight off illnesses.



Jeff Heepke

President

Illinois Horseradish Growers Association

Heepke Farms - Edwardsville, IL

Tell us a little bit about Heepke Farms.

Heepke farms is located in Edwardsville, IL and is 4500 acres, with about 250 acres designated to horseradish. The rest is primarily corn and soybeans. While the horseradish is only a small percentage of the acres, it takes an equal amount of labor, time and equipment as all the corn and soybean acres. My two brothers and I run the farm and keep up the family tradition as fourth generation horseradish farmers.

How is growing horseradish different from growing other crops?

You don't plant seeds, and there are no manufacturers offering equipment for the task. Horseradish is so specialized that if you want to grow it, you really have to be able to solve unique problems on your own. For example, instead of seeds, you plant the root cuttings from the previous season's plants. Because of this, you can't just decide that you want to grow it and then jump right in. You really have to be in it for the long haul, which is partly why we have maintained the tradition for four generations.

Similarly, there is no equipment designed for planting or harvesting horseradish. We have to design and engineer ways to modify other existing equipment to suit our needs. Still, much of this work is done by hand. Currently, we use a modified potato harvester in our horseradish fields.

What advice would you give a student interested in a career in agriculture?

Remember that people don't often need a doctor every day, but you do need agriculture at least three times a day. People rely on agriculture for their food, and that is the best way to think about the work. Even if you aren't working directly in the field with the crops, there are a lot of important ag jobs you can have. For example, we work with people at Southern Illinois University in Carbondale where research is being done to create and discover new varieties of horseradish. There are people that work to understand the nutrition of the foods we grow. Then there are marketing and advertising teams that help get the nutrition information to the consumer. If you have an interest in agriculture, you don't always have to get your fingernails dirty to do important work.

What is your favorite way to eat horseradish?

I always say 'Horseradish isn't just a condiment. It's also an ingredient!' It can be used to add some extra flavor from steak to shrimp. It's even great as a salad dressing. There are people combining horseradish with all sorts of flavors like cranberry and pineapple. I really like the horseradish with pineapple and apricot spread. The best thing to eat that on is a spoon!



Winter

Poinsettias

In the U.S., there is no plant more associated with the holiday season than the Poinsettia. But in fact, the Poinsettia is scientifically considered a small tree, or shrub. The colorful leaves of this shrub can range in hue from flaming red to pink to white. The decorative nature and the ability to thrive indoors have led to this festive plant becoming a mainstay in annual holiday displays.

Like many decorative plants, Poinsettias are often cultivated in greenhouses during the winter time. Though they are native to the tropical climates of Central and South America, they are actually very sturdy survivors and can live outdoors through relatively cold winters, as long as they avoid frost.

A Poinsettia by any other name...

The first Poinsettias in the U.S. came from Mexico. In English, the flower was named after the former U.S. ambassador to Mexico, Joel Roberts Poinsett. In Spanish, the flower has many different names depending on the country in which you find it. Try speaking the word for Poinsettia in the languages below:



Spanish (Mexico)

FLOR DE BUENA NOCHE

Euphorbe écarlate



French (Canada)



German

Weihnachtsstern

Shoujouboku



Japanese



Chinese

Xing xing

Christmas Trees

Often referred to as evergreens, Christmas trees include different species of Firs, Spruces, and Pines, all of which stay green year-round. These trees are grown and harvested in 45 different states.

Across the country, over 300,000 acres are dedicated to growing a traditional holiday sight, the Christmas tree. In 2012, over 17 million trees were harvested for display in homes and public areas. Illinois alone accounted for about 66,000 of these trees from over 250 different tree farms. Today, 98% of Christmas trees are grown on farms, and unlike artificial trees made from plastics, real Christmas trees can be recycled to provide benefits to the environment.

A Christmas tree can take up to 15 years to grow to 6 feet tall, so for each tree harvested, Christmas tree farmers plant one to three more seeds.

On average though, trees are harvested at about seven years old.



The very first
Christmas tree
was decorated in
Latvia in 1510!



Popcorn

Though popcorn is harvested in the fall, it is sold as dried kernels. Popcorn kernels can be stored in a cool dark place indefinitely. This is unique, as most crops must be shipped from long distances or stored very carefully in order to enjoy them during the cold winter months.

Popcorn has become a mainstay in theaters, sporting events, amusement parks, and many other gathering places. There are over 300 Illinois farms that grow popcorn, making Illinois the third largest grower of the product.

The fluffy snack caught on during the Great Depression. Street vendors would pop the crop at fairs, parks, and even restaurants. While other businesses failed in this era, the popcorn business thrived.

So how does popcorn pop? A popcorn kernel contains a small amount of water that suddenly expands when exposed to high heat. The kernel turns inside-out as it explodes. The steam inside the kernel is released and the popcorn is popped. Now it's ready for your favorite toppings!

Popcorn is Illinois' state snack food.



Many people in the U.S. still participate in an old German tradition of stringing popcorn and cranberries together to make garland for a Christmas tree. Try it yourself! Carefully thread a needle and use it to poke through popped popcorn and cranberries in any order you like. What kind of patterns can you make?





Richardson Family

Richardson Farms
Spring Grove, IL

Tell us a little bit about your farm.

Our farm is just 2 miles south of Wisconsin and 20 miles west of Lake Michigan which means there are millions of people within driving distance. Our ancestors couldn't have known this would be the case when they founded our first 160 acres here in 1840. Today, we are primarily an agri-tourism farm. In the fall, we host 80,000 visitors to our Adventure Farm and we are the home of the world's largest corn maze. After Thanksgiving, we will have well over 6,000 choose-and-cut Christmas trees, along with 1,000 wreaths and greenery.

We are currently in our 16th year in this business. We have 530 acres in all with 120 acres devoted to the Christmas tree business, 70 acres for the fall business, 110 acres used for mining, and 230 acres of corn and soy beans.

What is a typical day at your job like?

I love there is variety in my business life. Through the winter months, I do a lot of tax planning, advertising research, social media research and I attend conventions for agri-tourism and Christmas tree farming.

In the spring, we have to grind down 7,000 Christmas tree stumps from trees that were harvested and clear some areas of trees that won't sell. In April, we plant 9,000 Christmas tree seedlings. After that, we plant the corn and soybeans and 40 different varieties of pumpkins and gourds.

In the summer, we add to and improve the adventure farm, and perform weed control on all the crops, including the Christmas trees.

In September and October, we operate the Adventure Farm 12-16 hours a day. In November and December, we set up for, and sell Christmas trees, wreaths, donuts, fudge and more until the end of the year.

How do Christmas Trees differ from other crops?

Christmas trees are an agricultural crop, but caring for them is different. First, we plant the 15-20 ft. tall seedlings in an open area with a planter to help put them into the ground. In smaller areas, or where we are replacing dead trees, we drill a hole in the ground and plant seedlings.

We control weeds two tree rows at a time with a small tractor that sprays the ground under the trees. Between each tree row, there is a 3 ft. strip of grass which we have to mow and weed several times each summer. We also have to hand trim the trees one row at a time on all 100 acres.

This Ag Mag complements and can be connected to the following Common Core and Next Generation Science Standards: Common Core State Standards: ELA-Literacy.RI.4.2; RI.4.2; RI.4.4; RI.4.7; RI.4.10; W.4.7; W.4.8; W.4.9; SL.4.1; SL.4.4; L.4.1; L.4.6
Mathematics-Content.4.OA.3; 4.MD.1; 4.MD.2; 5.OA.3
Next Generation Science Standards: Engineering Design: 3-5-ETS1.B; Earth Sciences: 4-ESS3-1; Life Sciences: 4-LS1, MS-LS1-7; Physical Sciences: 4-PS3, 5-PS1-3, 5-PS3

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