

# THE DIRT



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## Exercising Your Green Thumb in Winter: Forcing Spring Bulbs Indoors

By Martha Willand, [mwilland@bisparks.org](mailto:mwilland@bisparks.org)

**T**he winters can be long, cold and drab in North Dakota. Perhaps you have a few houseplants around to bring life into your home, but flowers can be scarce this time of year. You can cure your winter blues, entertain your green thumb and bring spring's bounty indoors by forcing bulbs. You've likely seen potted spring bulbs like tulips and grape hyacinth at the grocery store or floral shops around April. With a little forethought and patience, you can make your own potted arrangements for your home, or to give as gifts for Easter, May Day or Mother's Day.

### Selecting Your Bulbs

Nearly any spring bulb can be forced, but you'll have greater success using heartier species such as crocuses (*Crocus* species), hyacinths (*Hyacinthus* species), tulips (*Tulipa* species), and daffodils (*Narcissus* species). (Fig. 1) When selecting bulbs, be sure to choose bulbs that are large, firm, unblemished, free from mold, and have no sprout growth. Retailers often note which species work best for indoor forcing. Bulbs can be purchased from brick and mortars, catalogues and online.

Store bulbs being kept for future use in a mesh or paper bag and in a cool dry location between 35-55 °F. If your best option is a refrigerator, be sure they are not stored near fruit as the ethylene gas emitted can cause the bulbs to deteriorate, and may result in a failure to bloom.

### Choosing the Best Container and Soil Mixture

Pots that work best for forcing bulbs are clean, between 4-12" in diameter, have drainage holes, and are deep enough to allow at least 2" of potting medium below the bulb for root development. (Fig. 2) Metal and clay pots are preferred over plastic as plastic tends to hold excessive moisture. When clay pots are used, they should be soaked in water the night prior to planting.

Bulbs are already equipped with the nutrients needed for blooming making fertilizer unnecessary. Commercial potting mix is an acceptable medium, but a more ideal

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Fig. 1 Daffodils in Watering Can. CCO 1.0



Fig. 2 White House Potted Tulips. White House photo by Ashley Viste.

composition would be equal parts potting soil, sphagnum peat moss and perlite. Whichever medium you choose, proper drainage is key to the health of your bulbs. Some moisture is necessary during the cooling process, but too much and you may end up with moldy bulbs. If your potting medium is too wet, let it dry out before planting.

## Bulb Arrangement

Forcing bulbs through a cooling period mimics winter through manipulation. However, the environment created is different than in nature so you can disregard retailer recommendations for outdoor planting depth and spacing. This is great news as it allows for bigger flower arrangements! Larger bulbs like hyacinth, tulip and daffodils can be planted with their tips just above soil line. Smaller bulbs like crocus, grape hyacinth and snowdrops should be covered with about one inch of soil. (Fig. 3)

Also, all bulbs can be planted densely as long as they aren't touching one another. For instance, in a 6" pot you may have 6 tulips, 6 daffodils, 3 hyacinth, or 15 crocuses. When planting bulbs, fill pots loosely with soil to allow easy and rapid root development. Leave at least 2" of space below larger bulbs such as tulips and hyacinths to allow for root development. If you are planting tulips, be sure to place the flat edge of the bulb towards the outside of the pot so the leaves grow outwards. The flat side always grows the first leaves and this will encourage an uniform presentation.

Once the bulbs are planted, cover lightly with soil up to ½" from the top of the pot, and water until it comes out of the drainage holes. Label each pot with the bulb species, date planted, and the date it is to be removed from the cooling phase. To prevent desiccation, cover the pot with a plastic bag that has small holes. The small holes will allow gas exchange.

If you're looking for a showstopper centerpiece, you can use more than one type of bulb in each pot to create a more diverse arrangement. However, you'll need to select bulbs that need the same timeframe for cooling. A deeper pot may be needed for this layered approach, and you will need to decrease bulb density to allow for more growth space.

## Cooling Period

Pots should be stored in a dark environment between 35-50 °F. If using a refrigerator for the cooling period, do not put pots near ripening fruit (especially apples) because of the ethylene gases emitted could affect bulb health. (Fig. 4) Other cool areas providing the right environment for the cooling period include a basement, garage, root cellar, crawl space or cold frame.

Generally, you can expect to wait at least 3 months until blooming time. The following table provides recommended cooling period times for various bulb types. If you store them beyond the recommended cooling period the flowers may not develop. If you stored the bulbs in a cool location prior to

Flowering Bulb	Cooling Period (weeks)	Time Needed to Bloom (weeks)
Crocus ( <i>Crosus</i> spp.)	12-14	2-3
Daffodil ( <i>Narcissus</i> spp.)	13-15	3-4
Glory of the Snow ( <i>Chionodoxa luciliae</i> )	15	2-3
Grape Hyacinth ( <i>Muscari armeniacum</i> )	14-15	3-4
Dutch Hyacinth ( <i>Muscari orientalis</i> )	10-13	2-3
Lily-of-the-Valley ( <i>Convallaria</i> spp.)	14-15	2-3
Paper White Narcissus ( <i>Narcissus tazetta</i> )	None	5-6
Tulip ( <i>Tulipa</i> spp.)	14-20	2-3



Fig 3. Hyacinth and Daffodil. CCO 1.0

planting, be sure to subtract this from the total recommended cooling period. During the wait, check pots periodically to ensure there is some moisture in the potting medium.

## Forcing Blooms

After implementing the recommended cooling period, remove your pots from their storage locations and place the pots in a cool location between 60-65 °F with bright, indirect sunlight. The shoots that developed during the cooling period are white to yellow in color. Once they turn green move the pot to a warmer location with increased sunlight.

The time needed before the bulbs bloom generally varies from 2-4 weeks. During the growing period, the bulbs may need more water as the leaves develop. Keep the bulbs moist but not overly wet. When the flower buds are nearly developed, the plant may be moved to its display location. Rotate pots for even sunlight exposure. For prolonged flowering, move the pots to dark and cool locations nightly, and avoid placing the pots in direct light or near heat sources.

## After-Bloom Care

You may be tempted to hold on to your bulbs for future use. Hardy bulbs can be



Fig 4. Potted Paper Whites Narcissus. CC BY-SA 3.0 Magnus Manske.

planted outdoors in the spring, or allowed to go dormant and planted in the fall. The bulbs should then be planted at the recommended outdoor planting depths and spacing. The bulbs may not bloom the first spring outdoors, but need an additional growing season. Tulips, paperwhites and hyacinths are best discarded after forcing, and no bulbs should ever be forced indoors more than once.

While winter can be long for those of us itching to be outside, you can find joy planting bulbs and experiencing spring early in your home. They also make great presents for loved ones for special occasions and holidays. If you have a hard time finding bulbs for forcing, some retailers even sell pre-cooled bulbs. You can get great results at reasonable prices, and you can enjoy the beauty and fragrance of spring even when the snow is still falling.



# Seed Catalogs Are Here! Spring must be just around the corner!

By Cathy Ruebel, Foxtail2400@gmail.com

It's that exciting time of year again...seed catalogs in the mail box! When outside is swathed in shades of brown, gray and arctic white, those magazines provide a reminder of more colorful days ahead. OK, months ahead.

Starting seeds during the late winter and spring months can be educational and very rewarding, not to mention cost effective, especially if you have a large garden to decorate/grow. Success will depend on factors such as seed variety, equipment, lighting, location, and timing. The plethora of plants and seeds that can be ordered from catalogs is enthralling, but there may be a good reason why some varieties are not available locally, so ask around. If only a few plants are needed or there's limited space and time for starting seeds, some catalogs also sell plants as an option, with a later ship date.

Read the seed description closely. Will it grow to maturity, given the relatively short growing season in North Dakota? Here, the frost-free date is generally around Memorial Day, and the season can be over by mid-September without any added protection. Carefully consider those vegetable varieties with the shortest maturity dates to ensure you get an edible crop for your labors. Perennials need to be hardy enough to survive winter in USDA Zone 3 or 4. Sometimes you can get away with a less hardy variety for a season, or maybe two (if you have a protected area) but disappointments are sure to come.

Once the seed packets arrive, set aside those which need to be directly sown outside in spring. Some seeds do not transplant well, or have a tap root structure that quickly outgrows starting pots. Sort out seeds by the planting intervals suggested on the packets. The timing for planting indoors is given as a range of weeks to transplant outdoors (the last frost-free date). Your growing environment and the growth habits of the particular seed can also factor into when to start that seed. (Fig. 1)

Some plants, such as Echinacea will need 3 months or more to start indoors, while others require much less time. For an excellent resource on starting seeds, the NDSU Extension Service has a publication written by Ron Smith, Horticulturist, entitled "How to Succeed at Seed Starting" (H-1139). For vegetable seed starting dates, please see the following University of Minnesota Extension website: <https://www.extension.umn.edu/garden/yard-garden/vegetables/planting-the-vegetable-garden/>

Equipment and location? The tepid sunshine of the short winter days will need to be augmented by additional lighting. If you are looking to grow just a few herbs in the kitchen, there are countertop grow light kits that will get you started. For larger set-ups, an inexpensive fluorescent shop light will provide adequate light of a better wave length than an incandescent bulb. Some seeds need light to germinate, however most just require moisture, warmth and darkness to germinate. After germination, lighting will be the difference between thin, spindly plants and vigorous lush growth.

If your location is fairly cool, less than 70 °F, you may wish to consider a heating mat to aid in germination. A timer will be helpful to

automatically turn the lights on and off. Fourteen to sixteen hours per day will simulate the bright day length of spring and summer, and help keep the trays warmer. Don't forget plant markers and an indelible ink pen for labeling your pots with the name and date planted.

Pots and soils will be next on your shopping list. Plastic pots and trays retain moisture and are less expensive, but are discarded (or better yet, sent to a recycler). Peat or coir pots may dry out more rapidly, but plants can be transplanted in the pots, so transplant shock is reduced. Type or size of pots to use also depends on the seed and their growing habits, such as tap roots or fast growers.

Plastic tray covers or plastic wrap will help to keep seeds and soil moist before germination, but should be removed after seedlings emerge. Use a specifically labeled seed starting mix and moisten the mix before filling the pots to ensure there are no dry pockets. Starting mixes are light and loose, so new little roots can easily push through.

Once the seeds germinate, add to your water a weak concentration of a plant starter fertilizer, such as *Miracle Grow Quick Start*®. Because the starting medium is fairly inert, new seedlings will run out of food and fail to thrive or die. As soon as the seedlings have their first true set of leaves, they should be transplanted into a potting mix of your choice.

Keeping notes on planting dates, soil mediums used, and stages of development is a great learning resource. This Tidal Wave Hot Pink petunia was planted in a coir mix on March 19, a week later than planned. On April 6, it is doing very well. (Fig. 2) Another variety of petunia was

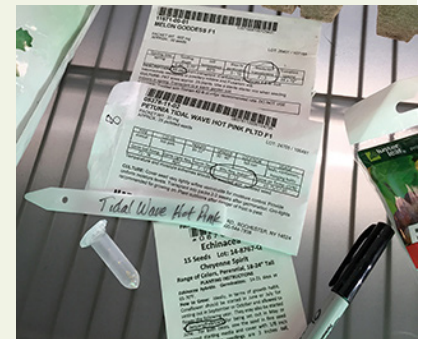


Fig. 1 Note seed packet's time to transplant to determine when to start seeds.



Fig. 2 April 6

barely poking above the soil on April 6. Tidal Waves are the tallest of the Wave series; on April 25, it was sending out its runners already, a month before it was going outside! (Fig. 3) Hot Pink was the shining star this year; the purple Tidal Wave struggled but came through by transplant time. A fancy new variety failed altogether, never getting beyond the cotyledon stage after germination.

Starting seeds indoors will certainly be educational and help with next winter's planning. Keeping track of successes or failures with different sellers and products can help keep costs down, too. Watch your quantities, too much of a good thing will continue to grow and grow and grow. That being said, please consider planting a little extra in your gardens this spring to share with the food pantries in your community. Above all, sharing your knowledge and experience with other gardeners is a fun and vital part of starting seeds.

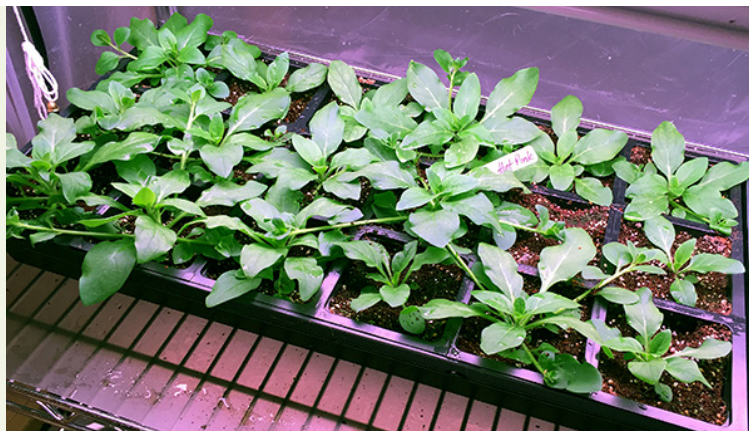


Fig. 3 April 25

# Plants for Cleaner Air

By Lila Hlebichuk, [lilahl@yahoo.com](mailto:lilahl@yahoo.com)

**W**inter has arrived in the north country. Gardeners have only a few choices to satisfy their gardening desires: nursery catalogs for planning or dreaming and house plants.

Creativity with houseplants is wide-open as new plants become available including many used solely as outdoor plants in warmer climates. Indoor herb gardens, fairy gardens, theme gardens or just a simple plant or two can lift your spirit as well as provide health benefits by removing toxins in the air.

Sick building syndrome was recognized after the energy crisis in the late 1970s. Buildings became better insulated and fresh air exchange was reduced. Sources of toxins include high-tech equipment and modern furnishings which off-gas volatile organics.

NASA published a study in September 1989 after testing house plants requiring low-light, soil and carbon filters and their effect on reducing toxins in the air. Leaves, roots,



Fig. 1 Gerbera Daisy. Photo Courtesy of Missouri Botanical Garden Plant Information.

soil and associated microorganisms were evaluated. The main plants included in the study were:

- Gerbera daisy (*Gerbera jamesonii*) (Fig. 1)
- Pot Mum (*Chrysanthemum morifolium*)
- English Ivy (*Hedera helix*)
- Mother-in-law's tongue (*Sansevieria laurentii*)
- Warneckii (*Dracaena deremensis* "Warneckii")
- Peace lily (*Spathiphyllum* "Mauna Loa")
- Chinese evergreen (*Aglaonema* "Silver Queen") (Fig. 2)
- Dracaena (*Dracaena marginata*)
- Bamboo palm (*Chamaedorea seifrizii*)
- Mass cane (*Dracaena massangeana*)
- Janet Craig dracaena (*Dracaena* "Janet Craig")
- Ficus (*Ficus benjamina*)
- Other plants mentioned in the study were:
- Banana (*Musa oriana*)
- Heart leaf philodendron (*Philodendron oxycardium*)
- Elephant ear philodendron (*Philodendron domesticum*)
- Green spider plant (*Chlorophytum elatum*)
- Golden pathos (*Epipremnum aureum*)
- Lacy tree philodendron (*Philodendron selloum*)
- Aloe vera

Chemicals used in the tests were:  
Benzene, which can be found in plastics, gasoline, inks, paints and dyes.  
Trichloroethylene (TCE) which can be found in paints, varnishes and adhesives.  
Formaldehyde which can be found in virtually all indoor environments including such items as facial tissues, carpet backing



Fig. 2 Chinese Evergreen "Silver Queen." Photo Courtesy of Missouri Botanical Garden Plant Information.

and permanent press clothing.

The study showed that up to 70% of formaldehyde, 67% benzene and 41% of trichloroethylene were removed from an indoor environment containing plants. The soil-root zone was found to be critical in removing toxins from the air. The study stated, "The plant soil-root zone appears to be the most effective area for removing volatile organic chemicals. Therefore, maximizing exposure to the plant soil-root area should be considered when placing plants in buildings for best air filtration." This can be done by removing lower foliage to allow maximum contact between the soil-root zone and air.

This joint effort between NASA and the Associated Landscape Contractors of America (ALCA) covers two years of data on the potential use of houseplants as a tool in solving indoor air pollution problems. The study and resulting data has gone a long way toward reminding man of his dependence on plants for his continued existence and the well-being on our planet.

Source: <https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19930073077.pdf>

# Dark Days, Bright Flavors: Growing Herbs Indoors

By Caitlin Stegmiller, [caitlin.steg@gmail.com](mailto:caitlin.steg@gmail.com)



**M**idwestern winter months mean forgoing our gardens and along with them, the delightful flavors and aromas of fresh greens.

Growing herbs inside is one small way to hold on to a bit of the delight of the summer growing season. While growing herbs indoors may seem simple enough, there are some steps to ensure healthy, productive plants.

## Where to Start

Most of the common culinary herbs hail from either *Lamiaceae* (mint) or *Apiaceae* (carrot) families. Common mint family herbs include basil, thyme, sage, rosemary and marjoram. Carrot family includes herbs such as cilantro, parsley, and dill. When choosing herbs for container-life, look for dwarf varieties which are better suited to the confines of indoor pots. Spicy Globe basil is a commonly recommended variety for container growing.

Herbs can be started from seed, though some can take several weeks to germinate. If the plants are needed (or you are just too impatient to wait!), they can also be purchased already started. As with other potted plants, a soilless planting media in a pot with holes in the bottom for optimum growing conditions.

## Keeping Things Going

In the short days of Midwestern winters, natural sunlight is hard to come by. Be sure your herbs are receiving enough light, at minimum, six hours of direct sunlight each day. Fluorescent lights can be added to supplement the waning daylight. A rule of thumb for fluorescent growth is two hours of fluorescent light per hour of required sunlight. The greater the light, the better the herbs will taste. Light helps the herbs develop oils, which will then make for a more sensational product.

Water your herbs when the soil in the pot feels dry. This may be daily, depending on the size of your pots and humidity level in your home. Furthermore, keep herbs away from direct heat sources, as these plants prefer cooler temperatures.

## Pruning and Picking

After a few weeks of TLC, your herbs should be thriving. The next recommended step in culinary herb growing process is pruning. With the exception of herbs that are grown for

their seeds (for example, coriander or dill), it is suggested to pinch off buds as they appear. Particularly with the mint and carrot families, herbs will lose their flavor or become bitter if allowed to flower. Once in bloom, the energy used to produce oils in the leaves is sent away to the flowers, leaving the leaves less-flavorful. Allowing plants to go to seed will also essentially end the productivity of annual herbs. However, many herb flowers are edible! Mature basil, cilantro, dill and chive blossoms can be used as garnish on salads or over a dish. Basil flowers can also be steeped in boiling water, strained and sipped as a tea.

The best harvest methods vary between plant families and incorrect harvest methods can damage the plant. The flavorful oil content of the herb leaves is at its peak just before flowering, making this the best time to pick. Harvesting mint-family herbs is similar to pruning, cutting the stalk just above a cluster of leaves, leaving much of the plant intact. Carrot family herbs can be cut near the base, harvesting the entire stalk. This will provide the plants with the best opportunity to produce new growth.

## Let the Culinary Adventures Begin!

Once harvested, rinse the herbs under cold water and pat dry. There are seemingly endless ways to preserve herbs. Drying and freezing are popular long-term methods. You can also preserve herbs in salt, creating a unique seasoning. A NDSU Extension publication, "Harvesting Herbs for Healthy Eating, H1267," detailing the best and safest methods for preserving herbs is available at <http://www.ag.ndsu.edu/pubs/plantsci/hortcrop/h1267.pdf>.

Since the uses for herbs, fresh or preserved, are so vast it can be difficult to decide where

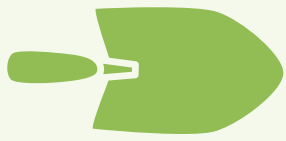
to begin. An exciting starting point is to create the simple syrup (recipe below), taken from Amy Stewart's book, *The Drunken Botanist*. Use your fresh herbs to create the syrup, then mix a few tablespoons with an alcohol of your choice (Gin or Bourbon are popular pairings

for mint, basil or rosemary) and a few squeezes of lemon or lime. Or omit the vodka from the recipe and simply mix the syrup with fresh berries and sparkling water for a treat the whole family can enjoy. Of course, the syrup could be simply drizzled over a fresh fruit salad or spread over savory waffles for brunch. The possibilities are truly endless. Stewart also suggests lightly bruising, or "spanking" your

mint-family herbs before using them to help release the flavorful oils from the leaves. No matter how you use these culinary herbs, they are sure to brighten even the darkest winter days.

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# Powdery Mildew on Peonies

By Laura Kourajian, lkourajian@yahoo.com

**P**eonies (*Paeonia* spp.) have been a mainstay in North Dakota flower gardens for many generations. They are attractive to ants, resistant to deer and rabbits and, as of lately, a host to powdery mildew. Powdery mildew is a fungal disease that gives the leaves a powdery appearance, as if someone had sprayed baby powder on the top of the leaf. Sometimes it will migrate to the stem, as well.

Never fear, it's not likely to kill the plant, according to Esther McGinnis, NDSU Extension horticulturist. "It's more of an aesthetic thing," she said. "It does steal some nutrients from the plant and the plant may be weakened, but it doesn't usually kill the plant."

The fungus starts when a spore floats around in the breeze until it lands on a leaf. It germinates and sets up housekeeping, starting the infection process. "It essentially forms a mat of fungal cells on the surface of the plant," McGinnis said. "It has specialized cells that puncture the plant and try to suck the nutrients from the plant."

Since it comes in with the wind, there's not a lot a gardener can do to prevent it, but there is plenty a gardener can do to get rid of it. Since the spores can live in the soil, it is important to practice good garden sanitation.

Fungicides will not cure powdery mildew as they are preventative measures, not curative, McGinnis said. "Once your plant has the infection, you cannot cure it," she said. The easiest fungicide to find in your local garden shop is chlorothalonil under the brand name Daconil. "If a gardener prefers an organic fungicide, sulfur can be sprinkled on the peony leaves, when temperatures are under 85 degrees F or it will burn the leaves," said McGinnis.

The first step in preventing powdery mildew on peonies is to make sure they are planted in the right spot: full sun, well ventilated,

not crowded and watered from underneath, not overhead, McGinnis said. "You're not going to win the battle if your peonies are in the shade," she said. If your plants are already in a sunny, well ventilated area, then it's time to break out the fungicide. For that, there are two schools of thought, McGinnis said.

There are those who recommend an integrated pest management strategy; Don't use fungicide until you're sure you need it. At the first sign of powdery mildew, clip off any infected leaves and spray the rest of the plant. "There are others who believe when the peony first comes out of the ground, you start spraying, and spray it every two weeks after that until mid-June or so," McGinnis said. She recommends if you've had several years of powdery mildew infections, you start applying fungicides preventively. If this is the first year you've noticed signs of the disease, be diligent. Clip off spent blooms and infected leaves and start applying fungicides, unless the plant is too far gone. In that case, she said, wait until the end of the year, and get rid of all of the plant debris and start with a fungicide the following spring. "At the end of the year, you clean up all the infected leaves," she emphasized. "You don't allow those leaves on your property. They'll be a source of spores for next year."

If it seems like powdery mildew on peonies is seen more often in recent years, that may be true. It is more prevalent in the nursery trade, though it does need the right conditions to grow, most especially high humidity. It also is heartening for gardeners to know the powdery mildew that infects peonies won't infect phlox, bee balm, roses or other ornamentals that are prone to the disease as that is a different species of the fungus. Gardening is an evolving process and there are always "new" diseases to learn about and tasks to incorporate into our gardening activities.



*Fig. 1 and Fig. 2 Peonies infected with the fungal disease powdery mildew will develop a powdery white appearance on the leaves.*



*Fig. 3 Healthy peony leaves have a glossy green surface.*



# 2017 Veggies for the Pantry

By Esther E. McGinnis, [esther.mcginis@ndsu.edu](mailto:esther.mcginis@ndsu.edu)

**N**orth Dakota is the land of plenty. Leading the nation in the production of agricultural crops such as spring wheat, canola, flax, honey, pulse crops, and sunflowers, one can forget that hunger exists in this great state. However, one in ten people in North Dakota depend upon food pantries to keep hunger at bay. Approximately 40% of all food pantry clients are children.

Master Gardeners in the Fargo-Moorhead area started the initiative called Veggies for the Pantry in 2016 to fight hunger and to increase the nutritional value of food pantry inventory. Food pantries typically receive large donations of canned and boxed goods from their patrons. However, fresh fruits and vegetables are typically in short supply and are especially valuable. The goal of the Veggies for the Pantry project is to fill this need.

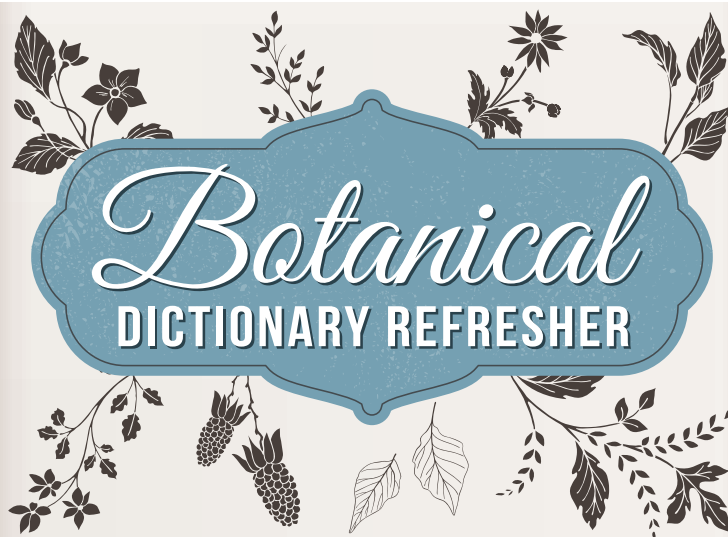
Veggies for the Pantry has completed another successful season in Cass and Clay Counties. This dedicated Master Gardener group of approximately 20 individuals staffed 11 different collection sites in West Fargo, Fargo, Moorhead, and Dilworth on Monday evenings during the growing season. In total, this group collected and delivered 5,956 pounds of produce to benefit the Fargo Emergency Food Pantry and Churches United for the Homeless.

This year, McLean County and Ramsey County Master Gardeners also began their own initiatives and collected 654 and 315 pounds respectively to benefit their local pantries.

The Master Gardener Program will continue to support this initiative for 2018. Grants will be available to fund the planting of Master Gardener vegetable gardens to support county food pantries. In addition, Master Gardeners are encouraged to plant an extra row of vegetables in their gardens to support local pantries.



The money to buy the veggies for the pantry signs were donated by American Crystal Sugar Co. in Moorhead, MN.



By Lila Hlebichuk, [lilahl@yahoo.com](mailto:lilahl@yahoo.com)

Our subject this month is leaf texture.

**Glabrous:** smooth, not hairy

A plant with a glabrous leaves often seen during the holiday season is *Ilex opaca*, the American Holly. (Fig. 1)

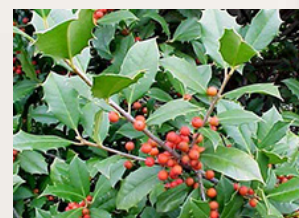


Fig. 1 American Holly.

**Coriaceous:** leather-like

A plant with coriaceous leaves is the often gifted *Anthurium* spp.

**Rugose:** deeply creased with distinct veins

A plant common in our state with rugose leaves is *Rosa rugosa*.

**Farinose:** mealy, with a covering of waxy, whitish powder

*Chenopodium album* is the common weed lambsquarters with farinose leaves.

**Glaucous:** having a whitish or bluish waxy covering

*Hosta* 'Halcyon' has glaucous leaves.

**Glutinous:** sticky

A plant that has glutinous leaves is the *Phrynium*, however in many plants sticky leaves may mean scale infestation.

**Scabrous:** rough like sandpaper

Elm trees have scabrous leaves.

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