Painting with Soil

By Caitlin Stegmiller, cait.steg@gmail.com

s Master Gardeners, we frequently conduct scientific tests to learn about our soils. Laboratory tests give us useful data. Touching, smelling and observing the soil helps determine its different qualities. We use all this information to foster optimum soil and plant health. And often, this scientific understanding is where our relationship with the soil ends. But to use soil as a media for painting encourages us to form a deeper understanding, relationship and appreciation of the earth.

Science and art combine beautifully. The history of using soils as artistic media is as old as human existence. Cave paintings and ceramics quickly come to mind as ancient forms of soil art. Despite this deeply rooted connection between soil and art, the worlds of soil science and fine art have been relatively disconnected. The 1992 Earth Summit highlighted a global need for soil health and understanding. It also started a movement within the art world to incorporate environmental factors and natural media into artistic works. Today, notable universities have

incorporated soil painting in their soil science programs. Artist and scientist Kirsten Kurtz, along with a talented team from Cornell University, created the exquisite, "Three Sisters in Soil" (Fig 1) painting for the United Nation's Food and Agriculture Organization's global soil painting competition. The work, created entirely with soils, earned the team first prize in the university division of the worldwide competition.

Our landscape offers a pallet of colors. The first step in soil painting is to gather soil samples. In North Dakota we have access to several different soil types with a wide variety of colors. The vast pallet of

Fig 1. "Three Sisters in Soil" by Kirsten Kurtz with Patty Chan, Shujie Li, Fatma Rekik, Emily Detrick and Shiyi Li, Cornell University Soil Health Program

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our landscape is especially highlighted in the Badlands. Red clinker (regionally known as Scoria), blue/grey bentonite clay, light tan sandstone, and dark grey lignite all makeup the distinct layers of color seen throughout the hillsides of western North Dakota (Fig 2). But a trip out west is not necessary to gather a variety of soil colors. Look in the garden for dark top soil, rich in humus. Gravel roads will often offer lighter tans and sometimes reds. Once you start looking at the landscape as an offering of pigments, you will be amazed at the different shades, hues and values that surround us.

Soils and art have been intertwined for centuries. With awareness of soil health growing in the general public, soil painting is an excellent way to foster discussions and education about soil science on a deeper level. And of course, soil painting is just good clean fun.



Easy soil painting at home:

The practice of painting with soil takes a bit of prep work, but is extremely rewarding (Fig 3). The following instructions are adapted from the NRCS. (https://www.nrcs. usda.gov/wps/portal/nrcs/detail/soils/ edu/?cid=nrcs142p2_054304)

- Materials
- soil (dried)
- · hammer or mallet
- mortar and pestle (rubber-tipped)
- · mesh sieve
- · small cups (portion cups, such as the ones that dressings come in from restaurants, are a good size)
- pencils
- ink pens (black, different tip sizes)
- · paint brushes (different kinds and sizes)
- · artist acrylic (clear gloss medium) or Elmer's glue
- · cup with water
- · watercolor or heavy weight paper

Procedure

- 1. Gather soils of various colors.
- 2. Place each dried soil sample on a piece of paper and crush into pieces with hammer or mallet.
- 3. Place some of the crushed soil into a mortar. Use a rubber-tipped pestle to crush the soil into a fine powder. Repeat to crush all of the different colored soils. Sifting the soil through a fine mesh sieve can be helpful to remove larger, uncrushed particles.
- 4. Place the different soils in cups -- notice the colors and textures.



- 5. Lightly sketch your design on the paper.
- 6. Pour small amounts of artist acrylic or Elmer's glue in small cups. Add roughly equal amounts of soil. Experiment with depth of color and mixing the different soils.
- 7. Paint! Take note of the different colors from each soil as you paint. Consider the different regions and makeup of each soil.
- 8. Allow the work to dry. NRCS recommends taping the work down with masking tape to ensure flat drying.



Gardening with Dogs

By Lila Hlebichuk, lilahl@yahoo.com

any passionate gardeners have at least one dog. Some even have an equal passion for dogs and are fanciers with many dogs. Combining the two successfully can take planning, precautions, training and management. Certain plants, pesticides, herbicides, mulch, edging, and decorations can be hazardous to dogs. Dogs can wreck havoc on carefully nurtured garden beds with one frenzied pursuit of a rabbit or squirrel. They can dig and choose to take a snooze in that sunny spot on top of the sun loving perennials and annuals. They might select your plants as their potty area; those are peonies not pee-on-mes!

Kathleen Wiese has stunning theme gardens in Wiese Acres and has one dog, her collie, Lady Hope, (Fig 1) who runs freely in the gardens. Lady is standing on the path in the photo, not in the middle of the garden. Kathleen said making it work is all about choosing the right breed and putting in some training right from the start.

Training does take knowledge, time and patience; all dogs are



Fig 1. Photo of Lady Hope courtesy of Kathleen Wiese

trainable. Kathleen is correct in that some breeds are easier than others. Some dogs were bred to "go to earth" which is better known as digging in pursuit of prey. Others are overly high energy or have extra massive paws.

Master Gardener Diagnostician, Rhonda Miller, recently lost her beloved dog and fearless hunter, Hershey. Hershey assisted many rabbits in transitioning to the great beyond when they made the mistake of invading her beautiful gardens. Her current dog, Shadow, alas is not as adept a hunter or understanding of garden boundaries. Shadow visits the gardens only when leashed.

Many dog fanciers with multiple dogs simply have the dogs in separate fenced areas and they are not allowed in the garden areas. One gardener has two fenced areas for the dogs. One is a dog yard where the dogs have areas to play and potty. A second area has grass with dandelions, a few other weeds, a couple of volunteer elm trees and many volunteer shrubs plus some native plants that reseed vigorously. Each year it is a surprise where new plants will pop up. The dogs are only allowed in the second area for short supervised play times where they love to roll in the grass and chase each other around the trees and shrubs. The flower and vegetable gardens are in fenced separate areas off limits to the dogs.

Collie fancier and breeder, Kyle Musselman, has separate fenced areas for his dogs and his gardens. As a dedicated plants man, he just couldn't let the dog yard be unadorned without plants. An old pickup bed was placed on a raised area out of the reach of the dogs is filled with glorious and colorful plants within the dog yard (Fig 2).

Some precautions and tips include:

Do not plant in an area where the dog has an established path to chase squirrels or use as a digging or potty area. You can create an area similar to a sandbox as a digging area.

Do not use steel edging which can slice a dogs pads or cocoa bean mulch which is extremely toxic to dogs and can cause death.

Raised beds and container gardens can be an option. However, make sure they are high enough so that the dogs cannot "water" your plants. Containers and garden ornaments should be heavy and not easily tipped.

Create an old-fashioned fenced vegetable garden.

Underground electronic fencing has been used by some, not as a boundary fence, but within the boundary fence to keep the dogs out of specific garden areas. Just make sure there is a path for the dog far enough from the buried fencing so the dog is not inadvertently shocked.

Follow the label directions on herbicides and pesticides and keep dogs out of the area for the specified time. Be sure to store these products out of reach of the dogs.

Dogs love to run the boundary fencing so allowing a space next to the fence behind your plantings can alleviate stress for the gardener.

Plant larger shrubs that are resistant to breakage or bloom on new wood. A few recommended shrubs include:

Serviceberry

Dogwood

Ninebark

Lilac

Mock orange

Viburnum

Plants to avoid.

Some plants are toxic or have toxic seeds or berries. Many plants have spines or thorns that could injure a dog. A partial list includes the following and there are many more so do your research before planting:

- Actaea
- Bugmansia (Angels trumpet)
- Colchicum (Autumn crocus)



Fig 2. Photo of truck bed flower garden courtesy of Kyle Musselman



Fig 3. Photo of Jif, Shetland Sheepdog courtesy of Stephanie Hoff



Fig 4. Photo of Quinn, Belgian Tervuren courtesy of Jane Alexander

- Convallaria (Lily of the valley)
- Delphinium
- Dicentra (Bleeding heart)
- Digitalis (Foxglove)
- Euphorbia
- Hedera (Ivy)
- Helleborus
- Hyacinth
- Ipomoea (Morning glory seeds)
- Iris

- Mirabilis
 (Four O'Clock seeds)
- Narcissus (Daffodil)
- Nicotiana
- Opuntia (Prickly pear)
- Philodendron
- Ricinus (Castor bean all parts, seeds can be deadly)
- Rhus (Sumac)
- Spathiphyllum (Peace lily)
- Taxus (Yew)
- Tulipa

Beautiful plants and beautiful dogs are both delightful. The champion Shetland Sheepdog, Jif, owned by Stephanie Hoff is gorgeous amongst the blooms (Fig 3). Quinn, a champion Belgian Tervuren owned by Jane Alexander is looking fabulous against an equally stunning background (Fig 4).

With some planning and care, dogs and gardens can both be enjoyed.

Source:

Dog Friendly Gardens Garden Friendly Dogs by Cheryl S. Smith

https://www.aspca.org/pet-care/animal-poison-control/toxic-and-non-toxic-plants

Using Photos for Garden Design

By Corinne Frey, vcfrey@yahoo.com

re you wanting to start a new flower bed, or rejuvenate an old one? Fall and winter are excellent planning times. Photos are a valuable resource for showing what is on the property and how it will effect what you plant, as they reveal problems and/or solutions you don't generally see while looking at an area. Photos expose the favorable and unfavorable elements — permanent or unique features, foundation issues, background clutter, drainage concerns, sun and shade availability, etc. (Fig 1)

Steps to take:

- 1. Photograph the area to be designed, trying different perspectives straight on, from a corner, above the area on a deck (Fig 2), view from inside the house, etc. If you are using a cell phone, many have a panoramic feature that will take a broader view of an area (Fig 3), but be careful not to photograph too wide of an expanse, because the picture will be distorted.
- 2. Take measurements of the area.

 Measure the length and depth of
 the area from several locations,
 especially if the flower bed will be
 free form. A key or legend on the
 final diagram is helpful for future
 reference. Using graph paper, 4
 squares to the inch so 1/4" = 1 foot,
 is helpful. Remember to include N,
 S, E, and W on your map.
- 3. Make photo copies of pictures. If using 3 x 5 or 4 x 6 prints, enlarge them 200-300%, using the black and white mode on your copier. If printing directly from a phone or computer, print to fill an entire 8 1/2 x 11 or 8 1/2 x 14 page. Working with larger photos makes the labeling process much easier.
- 4. Tape the print to the inside back cover of a tracing paper tablet. Using back pages first prevents impressions from being transferred

- to sheets below. If you have multiple prints, overlap them, and tape before tracing.
- 5. Trace main features house, windows, decks, steps, walkways, etc. (Fig 4) Make several copies of this sheet so multiple designs can be created without redoing the basics.
- 6. Draw the garden design, keeping in mind pollinators, water availability, favorite colors, plants, mature plant size, shape, texture, vertical accents, drainage, and soil. Also, consider how the garden will look in all four seasons. Will there be adequate room between plants when they mature so air will circulate? Are you trying to invite or deter wildlife? Is there a power source for water features? Does the flower bed offer an "invite" so guests want to continue around the corner? Would a curved border look better than a straight line? How much will my budget allow?
- 7. Darken lines with marker, and then color. To help ensure continuous color, I also suggest labeling bloom time spring, early summer, mid summer, fall. Is there a mix throughout the bed all season? Drawing in plant details is not necessary. If you look at renderings in magazines, basic shapes are used, and then colored to suggest what an area will look like.

During the chilly fall and cold winter days, compile photos you have taken throughout the year, and make a list of your ideas. The steps to take for a completely new bed, or to rejuvenate an existing bed, are virtually the same, however some questions will differ. The phrase, "a picture is worth a thousand words" has more meaning once you design an inviting flower garden using photos you have taken.



Fig 1. Photos are valuable tools to expose favorable and unfavorable elements on property (photo courtesy of Corinne Frey)



Fig 2. Take photos from multiple perspectives (photo courtesy of Corinne Frey)



Fig 3. Use the panoramic feature on your phone or camera to get a broader view of an area (photo courtesy of Corinne Frey)



Fig 4. Trace basic structures, then make multiple copies before drawing in plants and accents (photo courtesy of Corinne Frey)

Part Two: **Hobby Greenhouse/Solarium**

By Barbara Garceau, garceau@utma.com

This is the second in a two part series on the Garceau greenhouse/solarium. Part One, published in the May 2019 issue of The Dirt, detailed the decision to build, problems encountered, and the solutions. Part Two provides the actual timeline of planning and construction, along with photos of the process.

July 2018: North Dakota State Fair, Minot, ND—looked at hobby greenhouse in the commercial lot; talked to the salesperson about the construction. Learned that Menards carried all the materials.

Same Day: Menards, Minot ND—went to the building materials department and asked about greenhouse fabrication materials. Was shown the section and the materials by Eric Hanson.

August 2018: Began research on panels between harvest days. Drew designs for greenhouse and construction details.

September 8, 2018: Saw sale windows at Munro's Lumber and discussed the windows with Charlie.

September 18, 2018: Poured concrete for floor.

September 19, 2018: Ordered 30 inch door to go between garage and greenhouse.

September 25, 2018: Trip to Menards to order 25 mm Lexan panels; no profiles available; worked with Eric again. He said to ask for him when calling on this matter or email him because he would have an idea of what is going on.

September 27, 2018: Phone call to Amerilux Company for information, was connected with Stephanie.

September 28, 2018: Received email from Stephanie with price quotes and 7 attachments which included the framing guide and installation guide.

October 4, 2018: The wall frames are up and the rafters have been built! Blue foam board covers the window and door openings in the garage since they are not here yet. (Fig 1)

October 7, 2018: Eric contacts Stephanie, sends me a copy to make sure everything is correct and we wait. Order scheduled to be in Minot by October 27.

October 10, 2018: After Stephanie and I both okayed the order, it was placed. The rafters for the greenhouse were in place and the sheathing was going on. Look at how cold it was—snow on the garage roof. What a miserable month! (Fig 2)

October 20, 1018: The house-wrap was going on and the plywood was on the north part of the roof. The windows were in, and house-wrap covered the front half of the roof where the polycarbonate panels would be installed. (Fig 3)



Fig 1. Photo courtesy of Barbara Garceau



Fig 2. Photo courtesy of Barbara Garceau



Fig 3. Photo courtesy of Barbara Garceau



Fig 4. Photo courtesy of Barbara Garceau

October 30, 2018: Email received from Menards stating that all materials had arrived. Siding was going on.

October 31, 2018: Went to Minot to get panels and profiles. Found that three of the profiles had become detached from the packaging and were missing, lost in transit somewhere between Green Bay, WI, and Minot, ND. Eric got on the phone to Stephanie after he had the Menard's receiving crew recheck the area to make sure the profiles weren't just misplaced. Together they convinced the company to send a new set of profiles directly to our home so we wouldn't have to make another four hour trip to Minot.

We made a hasty trip back home in time to welcome our first trick-ortreaters to the solarium.

November 2, 2018: Contacted Stephanie about proper orientation of profiles because of conflicting information in the instructions sheets.

November 3, 2018: Stephanie sends out fact sheets on proper installation of profiles.

November 7, 2018: The profiles finally arrive but it is too cold to open up the roof. Siding is complete on north side. Front and west end just await the panels for the roof to be completed. (Fig 4)

November 14, 2018: 40 above! The panels go on and the south side is finished. The electricians also showed up so there were lots of people traffic jams going in and out. Long ways to go before it's ready for plants in March but we'll get there. (Fig 5)



Fig 5. Photo courtesy of Barbara Garceau



Fig 7. Photo courtesy of Barbara Garceau

And now that the solarium is completed, some "after-build" thoughts to ponder:

- 1. The plants grew like crazy in this room. I planted them the same time as I always have and they were just monsters by the end of May. I'm looking to move starting dates back at least 2 weeks this coming spring and possibly a whole month. (Fig 6)
- 2. I wish we would have gone two feet wider. I based the size on my sister's greenhouse without realizing she only puts plants on one side of the room. With shelving and plants on both sides, the walk space got a little narrow in May. (Fig 7 & 8)
- 3. The sun's angle changed the way plants grew: in March, the south side got the best light; in April, the center of the room was the best; and in May, the north wall was the best. So we did have to do some rotating of plants.
- 4. We absolutely love this solarium. It's just like being outside--even when it's 10 below out. We used it all year round except when it was really cold out-like 30 below with a strong north wind. We use a combination of an electric heater set at 45 degrees and a propane heater which we used to warm it up to 70 or so if we wanted to sit out there. (Fig 9) My husband, Gary, figures it cost about \$100 a month to heat it during the winter (which seems like it was 9 months long last season).



Fig 6. Photo courtesy of Barbara Garceau



Fig 9. Photo courtesy of Barbara Garceau



Fig 8. Photo courtesy of Barbara Garceau

Food Preservation Safety

By Julie Garden-Robinson, Ph.D., R.D, L.R.D.

t's the time of year where vegetable gardens are overflowing with produce. As we reach for our canning jars, pickling spice and vinegar, it is important to recall food preservation safety guidelines. Beginning canners and seasoned preservationists alike are subject to making some potentially dangerous errors when preserving foods. So, take a minute to test your knowledge with this quiz created by NDSU Extension Food and Nutrition Specialist (and Master Gardener) Julie Garden-Robinson.

Food Preservation Quiz:

- 1. Fact or myth? Old church cookbooks have great canning recipes you will want to use.
- 2. Fact or myth? As long as you boil the jars of canned vegetables long enough, you will have a safe end product.
- **3. Fact or myth?** Vegetables, meats and most mixtures of foods should be canned only in a pressure canner.
- Fact or myth? Canning in your oven is a safe, convenient way to seal jars.
- **5. Fact or myth?** You can invent your own salsa recipe and can it as long as you process it in a water-bath canner.
- **6. Fact or myth?** Acid, such as lemon juice or citric acid, should be added to all tomatoes prior to canning.
- Fact or myth? Most vegetables do not require heat blanching prior to freezing.
- **8. Fact or myth?** You can expect high-quality food when you freeze foods in plastic containers that previously held whipped topping or margarine.
- **9. Fact or myth?** You can use glass mayonnaise jars to can food, such as peach sauce, in a boiling water-bath canner.
- **10. Fact or myth?** Paraffin wax provides an excellent seal on jelly and jam jars.
- **11. Fact or myth?** Pickles are so acidic that they do not need to be processed in a boiling water-bath canner.
- **12. Fact or myth?** Screw bands should be tightened "fingertip tight" prior to canning.

Food Preservation Quiz Answers:

 Myth. Old church cookbooks often provide outdated and unsafe canning recipes. U.S. Department of Agriculture canning guidelines underwent a major overhaul in 1994, and in 2006, canning guidelines were reviewed and revised. Follow only current research tested canning recipes, such as those from USDA/Extension or Ball.

- 2. Myth. Unless you process canned foods properly, you could put yourself at risk for botulism, a potentially fatal form of food-borne illness. Clostridium botulinum spores can grow and produce a toxin in low-acid foods in sealed cans or jars. Boiling jars at 212 degrees will not kill this organism or its spores.
- 3. Fact. The acidity (or pH) of a food determines how foods should be canned. Low-acid foods such as these must be processed in a pressure canner: Vegetables (except when acidified) Meats Poultry Seafood Soups Mixtures of acidic and low-acid foods
- **4. Myth.** Canning in an oven is not safe. This method can be extremely dangerous for low acid foods.
- **5. Myth.** If you invent your own salsa recipe, you can freeze it. Follow salsa formulations exactly and measure/weigh ingredients carefully.
- **6. Fact.** Tomato varieties vary in the amount of acid they contain depending on variety and growing season. For safety, tomatoes to be canned in a water-bath canner or a pressure canner should be acidified with one of the following: Add 2 tablespoons of bottled lemon juice per quart (1 tablespoon per pint) Add ½ teaspoon of citric acid per quart (¼ teaspoon per pint)
- 7. Myth. For best quality, vegetables should be heat-treated (or blanched) in boiling water for the recommended length of time. Blanching inactivates enzymes (small proteins that regulate processes). Without blanching, undesirable flavor, texture and color changes can occur.
- **8. Myth.** Using these types of containers can result in freezer burn or dehydration. Freezer burn is a quality issue, not a safety issue. You may not want to eat freezer-burned food because of changes in the color, texture and flavor.
- **9. Fact** (kind of). They are safe to use, but Mason-type jars are the best choice for canning. Expect more seal failures and potential breakage when reusing commercial jars. Mayo jars have a narrower sealing surface and are tempered less than Mason jars.
- **10. Myth.** Paraffin wax does not provide an air-tight seal. Spoilage (mold growth) can occur. Use two-piece, self-sealing lids on jams and jellies.
- **11. Myth.** Many molds, yeasts and some bacteria survive in acidic environments. To inactivate molds, yeast and bacteria, process pickles in a water-bath canner for the recommended time.
- **12. Fact.** Just use your fingertips not your muscles to tighten screw bands. Over-tightening can lead to seal failures. Prepare lids as directed on the package. Do not reuse lids. You can reuse screw bands



Immigrant Amaryllis

Hardy house plant has been part of Johnson/Rieger family for more than 100 years

By Laura Kourajian, lkourajian@yahoo.com

hen 21-year-old Johanna Sundstrom left Sweden for a new life in America, she brought with her an amaryllis plant. It may have been her eventual husband, Per (Peter) Johnson who brought the amaryllis when he immigrated to Canada and then America in 1900 or 1901, but Johanna's descendants' "best guess" is it came with her in 1904. Regardless, this long-lived amaryllis plant has been a part of the Johnson family for more than 100 years. Today, the "mother" plant (Fig. 1) sits in a south-facing bay window in the home of the Vincent and May (Johnson) Rieger family southwest of Esmond in Pierce County. May (Johnson) Rieger was the fifth child and youngest daughter of Peter and Johanna.

The plant was the subject of a newspaper article a year ago, and Vince and May's youngest daughter, Cindy Rieger Wilhelm (Fig. 2), did a little family research to verify its start. "I called each of my siblings (there are three other Rieger children still living) for the article in the newspaper," she said. "I asked each of them, 'Tell me what you know about this plant.' We basically all knew the same thing (about the origin of the plant), so then it must be right." What is right is the plant has been in their home as long as any of them could remember, and they all remembered hearing the story of their grandmother bringing it with her to North Dakota when she came from Sweden, stopping in Minneapolis briefly before marrying Peter Johnson and moving to his homestead near Heimdal, in Wells County. "I just remember it's always been there, just a part of our lives," Cindy said.

The amaryllis (Fig 3), with its blossoms the color of an almost-ripe tomato, blooms at Christmas, does not go dormant and randomly blooms at other times of the year, according to family members. Bonnie Rieger Alexander, May's oldest daughter who lives in Esmond, remembered a time when the family plant was especially colorful. "When mom was in the nursing home in Harvey, that plant was blooming," she recalled. "It had 62 blooms on it. I cut a few of those beautiful flowers and took a nice bouquet to mom. She was so tickled."

The Johnson Rieger family amaryllis is likely

a member of evergreen Hippeastrum, which is different from the amaryllis bulbs many of us are accustomed to seeing in catalogs and other retail outlets during the Christmas holiday season, often packed with a plastic pot and a dehydrated wafer of potting medium. Those bulbs generally produce a few leaves before sending up a stalk that will produce four trumpet-shaped blooms.

Back to the Johnson family heirloom amaryllis. Vincent and May raised their family on the farm southwest of Esmond, where the amaryllis lived among other houseplants that ultimately didn't have the skills to

survive. Vince and May lived there until Vince passed away in 1991 and May moved into Esmond in 1992. The house stood vacant for part of the year, still fully furnished with all the family belongings. During the next 26 years family members made frequent visits from April through October. Older brother Gary and Bonnie would often stay during summers. The amaryllis maintained its spot in the bay window in the dining room.

Cindy moved back to the farm home in 2018 after retiring from a teaching career and selling her home in Minot. The family heirloom plant is getting the daily TLC it deserves, but it had to survive years of neglect. Family members made periodic sojourns to the farm to check on the house, mow the lawn, move some snow,

Fig 2. Cindy Rieger Wilhelm, standing next to the amaryllis plant originally brought to the United States from Sweden by her homesteading grandmother.

(Notice the size of the mother plant).



Fig 1. The immigrant amaryllis in the south-facing bay window at the Rieger farm home. In the past 20+ years, the plant has survived in the vacant home with intermittent TLC.



How can you not love such a plant?

I love the heritage of my amaryllis. The fact that it came with my grandmother from Sweden makes it that much more special. With all of that heartfelt sentimental value, it is even hard for me to grasp that it is the most abused plant I own. It should have been repotted about 15 years ago. The bulbs are bulging out of the top of the pot. I forget to water it. I neglect it constantly. If there was an agency to enforce plant neglect, it would have been taken away from me a long time ago.

Despite all the horrible treatment, religiously, it blooms twice a year. How can you not love such a plant? My grandmother must be watching over it for me.

- Yvonne Rieger Westrum, who has an offspring of the original plant at her home in Grand Forks.

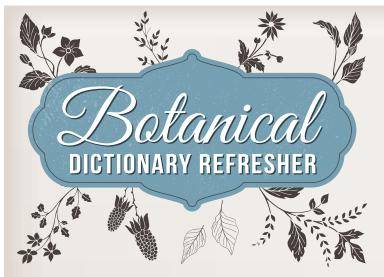
and water the amaryllis. They also had helpful neighbors who would check on the house and water the plant now and again. One neighbor, Cindy said, even rigged up a simple watering system by hanging a net over the amaryllis and piling snow in the net, so as it slowly melted, it watered the plant.

But there were times when the plant looked to be a goner. "We'd come out to the farm and look at it and say, 'It's done. It's gone.'," Cindy said. Nonetheless, they'd give it some water and talk to it nicely, and it would come right back.

"We've always said grandma is looking over it," she said.



Fig 3. The blooms of the amaryllis are the color of an almost-ripe tomato with cream-colored throats.



By Lila Hlebichuk, lilahl@yahoo.com

This issue will focus on "twin" definitions.

Abiotic – A non-living factor that occurs in an ecosystem that may affect both the ecosystem and its surroundings such as sun, wind, temperature and humidity.

Biotic – A living organism that affects other living organisms such as animals, fish, insects, algae.

Angiosperm – A flowering plant whose seeds are housed within an ovary such as roses, corn, tomatoes, dandelions, oaks and grasses.

Gymnosperm - A vascular plant that produces seeds that are not protected in an ovary such as conifers and cycads (Sago palm).

Dioecious – Plants that have only male or only female reproductive organs on a single plant such as asparagus, hemp, hop, willow.

Monoecious – Plants that have both male and female reproductive organs on a single plant such as moss, oak, squash.

Sources:

Garden-pedia by Pamela Bennett and Maria Zampini

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