



Spring/Summer 2023

## Area IV Farm Research: Supporting the Expert Generalists

Farming and ranching is demanding. This is especially true in the northern Plains, with our short growing season, severe climates, difficult markets, and ever-increasing operating costs.

Navigating the year-to-year challenges to make ends meet while adding value to an operation requires producers be 'Expert Generalists'. Orit Gadiesh, renowned CEO and often listed as among the world's most powerful women, coined the term expert generalist. The concept refers to a person who has in-depth knowledge and skills across many different disciplines. This characteristic gives the person the capacity to recognize patterns, make connections, and adapt to changing circumstances. Just like what's needed to successfully farm and ranch in the northern Plains.

So, you're an Expert Generalist. But, you already knew that, even if you weren't using Gadiesh's term. Attaining this status is developed through an innate curiosity and drive to learn about many things, often at the same time: crops, soils, livestock, markets, machinery, support programs, etc. Expert generalists leverage their curiosity to develop a deep well of knowledge to draw out solutions when problems arise, as they always do.

To support the work of expert generalists on the plains, the Area IV SCD Cooperative Research Farm has been working to solve problems related to cropping system sustainability for the past 40 years. Established in 1983 through a unique lease arrangement with a retiring farmer, Area IV SCD Supervisors, and the USDA-ARS Northern Great Plains Research Laboratory, the farm has been the site of large-scale, long-term research and technology transfer guided by six overarching goals:

- Conduct research on field-sized plots
- Develop management systems that conserve soil and water resources
- Improve water conservation and soil erosion control technology
- Promote the adoption and use of research findings
- Present research information in understandable terms
- Identify research needs through the advisory committee


These goals are as relevant today as they were when established in 1983. They also highlight how problem solving is circular and often best addressed when stakeholders and researchers work together.

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If the Research Farm is new to you, or if it's been a while since you've stopped by, please consider attending our Friends & Neighbor's Day at the USDA-ARS Northern Great Plains Research Laboratory on July 20<sup>th</sup>. There will be field tours and campus activities highlighting ongoing research. It's also an excellent time to share your ideas with staff on research topics that would best support your role as an expert generalist. Also, keep an eye on future installments of this newsletter to include research highlights from the Area IV SCD Cooperative Research Farm. We have a lot to share.


Additional information about the farm and upcoming events can be found at <https://www.area4farm.org/>

-Mark Liebig, Soil Scientist  
Area IV SCD Research Farm



**AREA 4 SCD**  
Cooperative Research Farm

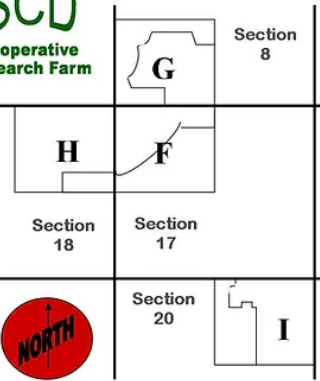
**Cooperative Research Farm**  
Area IV Soil Conservation Districts\*  
USDA-Agricultural Research Service  
Founded 1983



**Northern Great Plains Research Laboratory**

*Developing Sustainable Food production Systems*

- ✓ Long-Term Agro-Ecosystem Research
- ✓ Carbon and Nitrogen Cycling
- ✓ Dynamic Cropping Systems
- ✓ Production Economics
- ✓ Water Use Efficiency
- ✓ Cover Crops
- ✓ Soil Quality



\*McIntosh County SCD, Burleigh County SCD, Oliver County SCD, West McLean County SCD, Stutsman County SCD, Emmons County SCD, Sheridan County SCD, Morton County SCD, Cedar SCD, Kidder County SCD, South McLean County SCD, & Logan County SCD

[www.mandan.ars.usda.gov](http://www.mandan.ars.usda.gov) 701.667.3000 or 3001



*A cyclical relationship between expert generalists and specialists facilitates relevant research at the Area IV SCD Cooperative Research Farm.*

# Gather Around the Table

A recipe from our district clerk, Malissa McKee

## Egg Bake Breakfast Casserole

This recipe can be assembled and refrigerated for up to 24 hours before baking.

Grease 9x13" or 3-4 quart oven safe dish. Arrange bread cubes in an even layer in bottom of pan. Heat olive oil in a large skillet over medium heat. Add sausage and rosemary/Italian seasoning and break up sausage into bite size pieces. Add the onion, garlic, peppers, mushrooms, and spinach and cook until everything has slightly softened and sausage is mostly cooked through; about 5-6 minutes.

Remove sausage and vegetable mixture from heat and spread in an even layer on top of bread.

Whisk the eggs, salt, pepper, milk, and cheese together. Evenly pour over sausage/vegetable mixture. Add another sprinkle of salt and pepper on top.

Cover with plastic wrap or aluminum foil and refrigerate for at least 30 minutes or up to 24 hours.

Preheat the oven to 375 degrees. Bake, uncovered, until the top is golden and edges are crisp. Insert a toothpick in the center and when it comes out clean, casserole is done.

Cool for 10, then slice and serve.

Leftovers keep well in the fridge for up to 5 days.

### Ingredients:

- 4 cups cubes of crusty bread
- 1 t. olive oil
- 1 lb ground pork sausage
- 1 t dried rosemary or Italian seasoning (optional)
- 3/4 c chopped onion
- 2 garlic cloves, minced
- 2 c chopped bell peppers
- 1 c sliced mushrooms
- 1 c roughly chopped fresh spinach
- 12 large eggs
- 1/4 t salt
- 1/8 t freshly ground black pepper
- 2/3 c milk or half and half
- 1 c shredded cheddar cheese
- Optional garnish: green onion and/or chopped parsley





# Tree of the quarter—Meadowlark Forsythia



The Meadowlark Forsythia is a hybrid of Early Forsythia and Albanian Forsythia, this is the hardiest of all forsythias evaluated at NDSU. This species performs well in plantings throughout the Northern Plains, with a USDA zone 3 cold hardiness. It prefers full sun or light shade and soil pH of 5.5 to 8.0 and clay to loam soils. Coarse textured, droughty soils or ponded sites should be avoided.

This medium to large shrub is suitable for farmstead windbreaks and is a dense shrub form that provides cover to many wildlife species. The largest shrub in ND is 13' with a canopy spread of 15'.

There are no known pest problems to date in ND. The species has a dark green leaf color, yellow flowers in early spring, and a purple fall color.



## Tree Planting Tips

### Ethan Gress—District Technician

As we approach the spring and summer seasons, we get closer to the tree planting season. While the Morton County Soil Conservation District offers tree planting services there are many people who still plant on their own. When planting trees there are a few tips and tricks to keep in mind so that you can have the best results. After reading this article you should be properly prepared to go out and plant trees with confidence that they will grow and be successful.

#### Tips:

- think about the future success of the tree
- understand what kind of soil these trees will be living in
- make sure you give the trees enough space
- check for competition from other established trees
- adequate hole size
- eliminate air pockets
- WATER!!!



All of the tips above are listed in order of start to finish when planting your trees. The first thing you want to consider is the future of your trees and that means the mature growth of the tree and what challenges it may face in the years following planting. You should try to understand the soil that your trees will be calling home and how it may affect the success of the trees in the future. Trees need enough space to grow and be successful and this space can change depending on the species that you are planning to put in. For example, shrubs may only need around 4'-6' to grow, but fully grown conifers would be suffocated in that amount of space. Most tree species purchased from a nursery should have a tag explaining the correct spacing and environment for the tree. Try to plant in a space where the newly planted trees will not have to compete very much for sunlight and water naturally. The adequate size of the hole in which you wish to plant the tree should be two to three times wider than the size of the roots. You are also going to want to tamp or pack the soil back in after the tree is in the ground to eliminate air pockets that could cause poor soil to root contact. The last major tip you should know is how to water your newly planted trees. It is recommended that you water the trees consistently until they have been fully established, which can take weeks to months after planting. Everyday for the first couple of weeks is a good benchmark, and you may need to water more or less depending on the weather.

#### Sources:

<https://www.altums.com/resource/7-simple-things-planting-tree/>  
<https://www.milorganite.com/blog/trees-shrubs/planting-trees-and-shrubs>

## Random ND Facts

- North Dakota has 63 wildlife refuges, more than any state in the country.
- In 1738, the first Europeans explored the Dakota territory. Pierre Gaultier, French-Canadian, visited the Mandan villages for trade.
- Did you know that the first State President Benjamin Harrison admitted into the Union between South and North Dakota remains unknown to date? President Benjamin Harrison shuffled the statehood papers but failed to announce the order of admission.
- North Dakota is a rural state with most of the State's land used for agriculture.
- With 70,704 square miles, North Dakota is the 19th most extensive US state.
- Lake Sakakawea on the Missouri River is one of the most extensive man-made lakes in the nation.
- With slightly over 779,094, North Dakota is the fifth least populated State.
- North Dakota is the leading producer of honey in the country.
- North Dakota's income has recorded the highest growth in the country since 2007.
- A North Dakotan, David Henderson, invented and named the camera by adding "K" to the scrambled first four letters of Dakota ...Kodak.



## Update from your Watershed Coordinator - Chance Porsborg

Howdy everyone!

As we continue to enthusiastically wait for spring, we are ready to start new and continue previously started cost share projects. I have been busy the last couple of months getting settled in, reaching out, and picking up where things left off. There has been a lot accomplished while we wait for the snow to melt, with a list too long to name but there are a couple of things that I will take the time to mention.

To start off I have been attempting to reach out to producers within our watershed (Big Muddy Watershed) in Morton County to see if they have any interest in the cost share projects that we have to offer via mailing. To which included an informational brochure on the watershed and its cost share practices, and at the bottom a short questionnaire for one to send back. Within the first week, I have received vast amounts of responses and am very grateful to those of you that have replied!

I am also in the development stages of organizing a “shoptalk” within the watershed that will be open for all producers to attend. This shop talk is geared towards YOUR concerns, YOUR questions, and things YOU want to learn about. We are aiming for the beginning of July, but do not have an official date set. I am eager to hear your thoughts and feedback. If you have any questions or suggestions for topics for this shoptalk or any questions regarding 319 cost share and its projects, feel free to contact me at the office at 701-667-1163 ext 3. I wish you all the best in calving, planting, and what seems to be the new daily chore of moving snow!

As mentioned in the previous newsletter I am a rancher myself and raise sheep. Now and in each of my articles to follow I will be including a sheep fact for you. Today’s sheep fact: you can tell the age of sheep by counting their bottom teeth!





# Morton Co Soil Conservation Achievement Award Nomination

The Morton Co SCD Board is currently accepting nominations for the Annual Achievement Awards Program and other local awards. The Achievement Award is the highest honor the SCD can bestow upon any operation. Achievement winners will be honored both at the State Convention in Bismarck and within the Morton Co SCD publications. The winning operation will also receive an ariel photo of their farm or operation. The SCD board looks to select producers who excel in promoting conservation efforts in all areas of their operation. Many producers in Morton County are very progressive in promoting conservation and conserving natural resources on their farms and ranches.

The SCD would like to give you the opportunity to share your input when selecting our winner! If you know of a producer that you feel is managing or promoting our natural resources in a conservation based manner, please take this opportunity to assist us.

Nominations for the awards can be made by completing the form below and returning no later than May 26, 2023. Nominations can be dropped off any time during business hours, mailed to the Morton Co SCD at 2540 Overlook Lane, Mandan ND 58554, or emailed to [malissa.mckee@usda.gov](mailto:malissa.mckee@usda.gov).

If you have any questions please feel free to contact us at 701-667-1163 extension 3.

**Nominee Name / Farm Ranch Name:** \_\_\_\_\_

**Awards (please select at least one)**

Achievement Award \_\_\_\_\_ Community Service \_\_\_\_\_ Conservation Promoter \_\_\_\_\_ Grassland \_\_\_\_\_  
Conservation Tillage \_\_\_\_\_ Leopold Conservation Award \_\_\_\_\_

**Reasons for Nomination:**

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**Nominator Information**

**Name:** \_\_\_\_\_ **Reside in Morton Co:** \_\_\_\_\_ yes \_\_\_\_\_ no  
(you may choose to remain anonymous)

**Contact Information:** \_\_\_\_\_

Morton County Soil Conservation District  
2540 Overlook Lane  
Mandan, ND 58554-1593  
[www.mcscd.com](http://www.mcscd.com)  
Phone: 701-667-1163 ext. 3

***RETURN SERVICE REQUESTED***

**Non-Profit Organization**  
**U.S. POSTAGE**  
**PAID**  
**BISMARCK, ND**  
**Permit No. 433**

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*All Programs and Services of the Soil Conservation District are offered on a nondiscriminatory basis without regard to race, color, national origin, religion, sex, marital status, age, or handicap.*

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■ Chesak Seed House	Hirsch Florist	West River Telecomm
■ Comfort Inn & Suites of Mandan	L&H Manufacturing	
■ Dakota Community Bank	ND Farm Bureau	

### UPCOMING EVENTS:

MCSCD Board meeting are generally the 2nd Thursday of the month & are open to the public.  
Check Facebook for dates and time.

#### **April:**

6—Women's Ag Night, Baymont Inn & Suites, Mandan  
20—Morton Co SCD board meeting  
21—SCD radio interview for Earth Day, Rock101  
22—Earth Day  
27—Brave the Shave

#### **May:**

3-4—Morton Co Ag Day  
29— Memorial Day, Office Closed

#### **June:**

10-11—Buggies and Blues

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BLAKE SOGGE