

Growing Garlic in North Dakota

Frost came early this year—much too early.

After a hard frost, our natural tendency may be to put our gardens to bed.

But wait a second. There are still a few things we can plant now, including garlic. A little effort now can lead to amazing flavors in your meals next summer.

Fall is the season to plant garlic. Order your bulbs now before they are all gone. Demand for bulbs is high this fall, and shipping delays may occur due to the COVID crisis.

Garlic types include hardneck, softneck and elephant. Hardneck types are hardiest and most suitable for us in North Dakota.

‘Music’ (shown) is the most popular variety in the north. This selection from Canada is hardy and very productive. ‘Music’ cloves are huge, flavorful and store very well.

Garlic is cherished around the world, and many cultures have developed their own favorite varieties. Go online and you can find hardy varieties from countries throughout northern Europe and Asia.

Some varieties taste mild while others are bold. Some varieties are prized for baking, while others are famous for roasting or frying. The cloves come in shades of white and purple, many with bright stripes.



Fall is the season to plant garlic. It will add fresh, zesty flavors to your meals next year.

Garlic is planted soon after the first hard frost, which is usually in late September or early October.

The cloves grow best in a rich, well-drained soil. Add an inch of compost to the site and 2 to 3 pounds of 10-10-10 per 100 square feet. Work this into the soil.

Separate cloves from the bulbs a day before planting. Set cloves upright in the furrow, pointed end up, 4–6 inches apart and 2 inches deep. Space rows 18–30 inches apart.

Water deeply to activate the cloves. The cloves will push out roots and underground shoots this fall. Mulch with 4 inches of straw or hay. This mulch will insulate the soil and protect the sprouted bulbs over winter.

The sprouts will shoot out of the ground next spring. Harvest the flower buds (scapes) when they curl in June. Scapes are mild in flavor and great in stir fries. Harvest the bulbs in July when the lower leaves turn brown.

The gardening season is not over. Plant garlic this fall and you will be rewarded with fresh, zesty flavors in your meals next year!

Inside This Issue

- | | |
|-------------------------|---|
| ◆ Growing Garlic | 1 |
| ◆ Time for Tulips | 2 |
| ◆ Plant Health Care | |
| ◆ Landscapes | 3 |
| ◆ Fruits and Vegetables | 4 |
| ◆ Weather Almanac | 5 |

Time for Tulips: Think Spring!

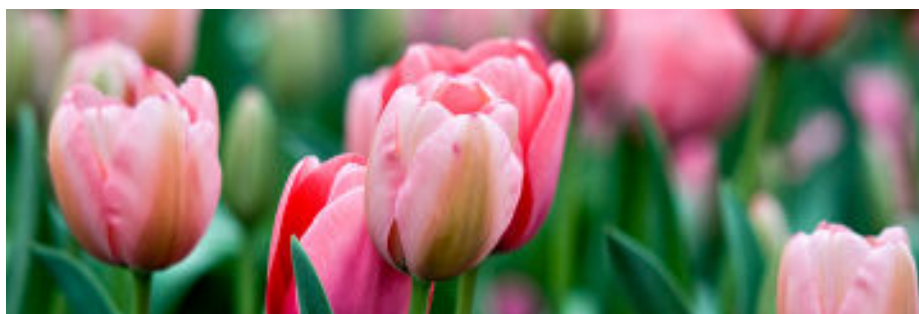
The first step to a colorful landscape next spring is to plant tulips this fall. Now is a great time to plant tulips. Planting early in fall leads to a strong root system before winter and vigorous growth next spring.

Tulips demand a well-drained soil. Add an inch of organic matter (peat moss, compost) to the bed and mix it into the soil. Plant the bulbs pointed end up, about 6–8 inches deep. Cover the bulbs. Sprinkle a bulb fertilizer containing timed-release nitrogen over the soil and work it in. Water the bulbs to start them growing. Apply a 3-inch layer of mulch over the bed.

To maximize impact, it's best to plant many bulbs of a few varieties rather than a few bulbs of many varieties. Plant in clumps or drifts (not rows) for a natural effect.

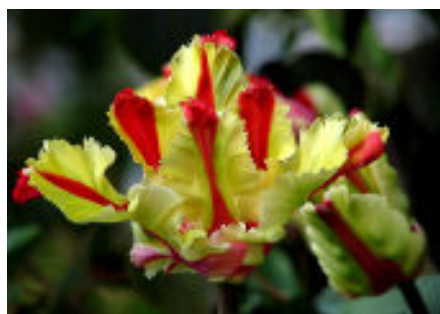
There are lots of types to choose from. Careful planning can extend your bloom throughout the spring.

I encourage you to try a new variety this year. Grow tulips in pots, too. Tulips grown in pots can bring the beauty of spring to your home months ahead of time!



Darwin Hybrids — Big and Bold

These are foolproof. The plants are vigorous, sturdy and have jumbo blooms. Darwin hybrids are sometimes called perennial tulips because they last for years longer than most other standard types. They bloom in mid-season. Popular varieties include the 'Apeldoorn' and 'Impression' series. Shown is 'Pink Impression'.



Parrot — Flamboyant

These are fun to grow. Their twisted petals are very showy and great for bouquets. Late blooming. Not especially sturdy or vigorous. Popular varieties include 'Flaming Parrot' (shown), 'Black Parrot' and 'Estella Rijnveld'.



Triumph — Colors!

These come in the greatest array of colors, including bicolors and stripes. These classic, single-cupped flowers appear in mid-spring. Triumph tulips are reliable, and many varieties are good for containers. Shown is 'Negrita'.



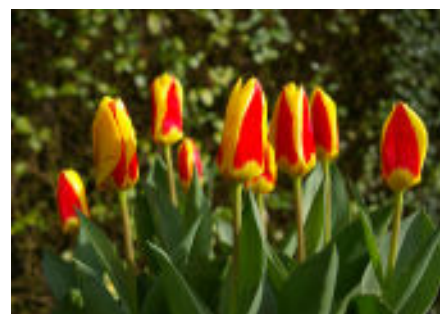
Fosteriana — Early Splash

These are the 'Emperor' tulips, the earliest of the big-flowered tulips to bloom. They make a great companion to daffodils. The blooms have a tendency to open up on sunny days and will be as big as your hand.



Double Late — Silky Peony

These are loved for their full, peony-like flowers. Great for cut flowers. Some varieties are fragrant. These are among the last tulips to bloom. Popular varieties include 'Angelique' (shown), 'Mount Tacoma' and 'Carnival de Nice'.



Kaufmanniana — Simple

These tulips and the botanical tulips are short, bloom early and have single flowers. Some look like water lilies. Good for windy areas, rock gardens and natural settings. These charmers will last for years. Shown is 'Stresa'.

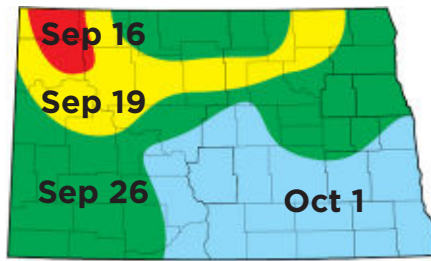
Plant Health Care

Landscapes



Planting Chrysanthemums

Select hardy, early blooming cultivars from garden centers (not florist shops). Plant ASAP. Mulch after the ground freezes. It's better to plant mums in spring to allow time for establishment.



Planting Trees in Fall

Plant trees early enough to allow several weeks of root growth and recovery. Ideal planting dates are shown. Chances of success diminish later in the year.



Wildflower Meadows

Kill a patch of lawn with glyphosate. Cultivate two weeks later and sow seeds. Seeds will germinate next year. Sowing guides are available online from northern prairie seed companies.



Fertilize

Fall is the most critical time to fertilize the lawn. This feeding will develop a thicker turf and prepare the lawn for winter. Fertilize ASAP. Fertilizations in October may lead to winter injury.



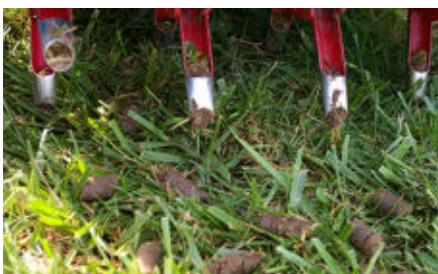
Sow Seed

Sow seed ASAP to allow seedlings sufficient time to get established before winter. Prepare seed bed, fertilize and keep soil moist until seedlings emerge.



Kill Perennial Weeds

The best time to kill dandelion, thistle and other perennial weeds is in mid to late September. The weeds will channel the herbicide down into their roots as they prepare for winter.



Aerate

Fall is the best time to aerate a lawn. Use a self-propelled unit with vertically operating, hollow tines. Two to four passes are best. Aeration is especially beneficial in compacted or thatchy soils.



Lay Sod

Cultivate soil and mix in a starter fertilizer. Stagger sod pieces like laying bricks. Fill gaps with soil. Stake if needed to keep in place. Keep moist for 1–2 weeks.



Boxelder Bugs

Bugs will congregate on sunny walls to stay warm. Seal crevices along doors and windows. Spray with 5 TBSP of detergent per gallon of water. Continue spraying as bugs appear.

Plant Health Care

Fruits and Vegetables



Frosted Apples

Apples on trees can tolerate temps approaching 25°F before damage occurs. If they freeze, wait until they thaw before picking. Use promptly.



Wasps

Wasps are looking for food and will be attracted to wounded/cracked fruits. Be cautious when harvesting fruits or picking up fallen fruits. The wasps will die after a hard frost.



Apple Maggot

Fruits develop dimples (*left photo*) where flies laid eggs. Maggots hatched and created trails inside (*right photo*). To prevent next year, pick up the fallen, maggot-infested fruits. Hang traps next July and spray insecticides if needed.



When to Harvest Pumpkins?

Harvest before a killing frost (28°F). Leave a few inches of stem attached. Fruits with an orange blush will turn more orange if exposed to sunlight and warmth. Place on a deck or indoors near a sunny window; green side toward the sun. Keep indoors during hard frosts.



When to Harvest Squash?

Signs of ripeness include dry stems, a dark-orange spot on fruit bottoms, and hard, glossy rinds. Harvest before a killing frost (28°F). Leave at least one inch of stem. Wipe but don't wash fruit. Cure butternut, butternut and hubbard squash in a warm (80°F) spot for 10 days to toughen skin for storage.



Ripen Tomatoes Indoors

Place your blushing, crack-free fruits on a newspaper and then place another newspaper sheet over them. This traps ethylene, which fruits emit when ripening. Keep away from windowsills and direct sun, which redden fruits before their inner flesh matures. Room temperatures develop fullest flavors.

Credits

Photos were made available under Creative Commons licenses specified by the photographers. **Page 1:** F. D. Richards, www.flickr.com/photos/50697352@N00/14800882264/. **Page 2:** Jim Gourley, www.flickr.com/photos/rudenoan/8569434122/; Coanri/Rita, <https://www.flickr.com/photos/coanri/144788717/>; Angelskiss31, www.flickr.com/photos/angelskiss31/3564849592/; Robert Lyle Bolton, <https://www.flickr.com/photos/robertlylebolton/32738785887/>; tanakawho, www.flickr.com/photos/28481088@N00/6965274960/; David Wright, www.flickr.com/photos/dhwright/4482104005/. **Page 3:** Mustang Joe, <https://www.flickr.com/photos/mustangjoe/9843601523/>; Joe Zeleznik, NDSU; Putneypics, www.flickr.com/photos/38983646@N06/4988268821/; Tom Kalb, NDSU; Timo Newton-Syms, www.flickr.com/photos/timo_w2s/8986743787/; Martijn van Sabben, www.flickr.com/photos/125993862@N06/26473456080/; Paul Tukey, <http://www.safelawns.org/blog/2010/10/now-is-the-time-to-aerate-if-you-must/>; Moon Co, moonco.wordpress.com/; William M.

Ciesla, Forest Health Management International, Bugwood.org. **Page 4:** Fredrik Alpstedt, www.flickr.com/photos/alpstedt/11025803586/; Nathan Feir, www.flickr.com/photos/vanmorbo/1580524725/; LeAnn Beck; E.H. Glass, New York State Agricultural Experiment Station, Bugwood.org; melina1965, www.flickr.com/photos/8989278@N03/1402899821/; danbruell, www.flickr.com/photos/mr-morshee/7966077448/; Andrea R, www.flickr.com/photos/andrea_r/41992649/.

Written by Tom Kalb, who expresses gratitude to the Horticulture/Forestry Team for their contributions to this report.

The information given herein is for educational purposes only. References to commercial products or trade names are made with the understanding that no discrimination is intended and no endorsement by North Dakota State University Extension is implied.

NDSU Extension, North Dakota State University of Agriculture and Applied Science, and the U.S. Department of Agriculture cooperating. Greg Lardy, Director, Fargo, North Dakota. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. We offer our programs and facilities to all persons regardless of race, color, national origin, sex, handicap, age, Vietnam era veterans status, or sexual orientation; and are an equal opportunity employer. This publication will be made available in alternative formats for people with disabilities upon request (701) 231-7881.

NDSU | EXTENSION

Weather Almanac for September 10-16, 2020

Site	FIRST FROST ^{1,2} (32°F or colder)		TEMPERATURE ² Sep 10-16				RAINFALL ^{2,4} Sep 10-16 2020				GROWING DEGREE DAYS ^{2,5} Sep 10-16 2020			
	2020	Norm	Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
	Bottineau	9/7	9/21	53	57	79	33	0.00	0.33	8.56	12.61	52	63	1924
Bowman	9/8	9/18	56	58	87	34	0.00	0.29	8.38	10.65	67	69	1982	2034
Carrington	9/8	9/26	56	59	77	37	0.00	0.47	8.96	14.51	56	67	2073	2111
Crosby	9/8	9/22	54	56	78	34	0.00	0.28	7.54	10.99	53	60	1880	1821
Dickinson	9/8	9/22	56	58	80	37	0.00	0.35	8.00	12.19	58	70	2106	2012
Fargo	9/9	9/27	56	60	73	39	0.64	0.65	16.41	14.95	51	68	2357	2263
Grafton	9/8	9/24	54	58	76	35	0.01	0.58	16.57	14.64	50	64	2088	1971
Grand Forks	9/9	9/20	55	58	73	36	0.04	0.47	13.22	14.36	52	63	2147	2021
Hazen	9/8	9/14 ⁶	54	60	81	29	0.00	0.32	11.45	12.35	59	76	2038	2209
Hillsboro	9/8	9/28	54	59	71	37	0.17	0.50	18.18	14.70	48	64	2179	2137
Jamestown	9/9	9/25	55	59	74	32	0.02	0.56	8.90	14.04	53	64	2075	2096
Langdon	9/7	9/17	53	56	74	36	0.01	0.43	10.76	14.36	44	54	1813	1688
Mandan	9/8	9/23	55	59	79	33	0.00	0.36	6.31	13.38	56	66	2184	2104
Minot	9/8	9/28	54	58	77	36	0.00	0.33	7.66	12.66	50	58	1973	1924
Mott	9/8	9/18	55	59	80	33	0.00	0.30	10.19	11.48	61	74	2034	2102
Rugby	9/7	9/21	54	57	77	38	0.00	0.41	7.92	14.10	51	63	1983	1954
Wahpeton	9/9	9/27 ⁷	55	62	75	33	0.72	0.69	16.62	15.51	50	71	2270	2361
Watford City	9/8	9/14	56	58	81	39	0.00	0.21	6.79	10.60	60	68	2090	2025
Williston	9/7	9/22	57	61	80	38	0.00	0.26	4.39	10.50	60	76	2147	2283
Wishek	9/8	9/18	55	58	80	32	0.01	0.27	10.11	12.17	51	63	2079	1920

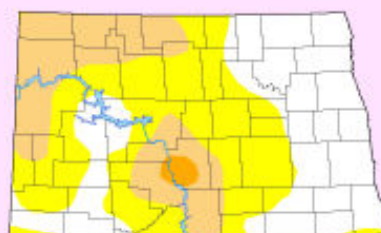
DAYLENGTH (Sep 17, McClusky, center of ND)³ LONG-TERM OUTLOOKS¹

Sunrise: 7:22 AM Daylength: 12h 29m Sep 23-27: Temp.: Above Normal; Precip.: Below Normal
 Sunset: 7:51 PM Change since Sep 10: -23m Sep 25-Oct 1: Temp.: Above Normal; Precip.: Below Normal

^{1,2,3} Sources: National Oceanic and Atmospheric Administration, North Dakota Agricultural Weather Network, www.sunrisesunset.com, respectively.
⁴ Measurements begin April 1.
⁵ GDDs for garden vegetables are not available. GDD data in this table are for corn, which responds to temperature as most vegetables grown in gardens. Data begin May 1 with base minimum and maximum temperatures of 50 and 86°F, respectively.
^{6,7} Frost data for Beulah and Campbell, respectively.

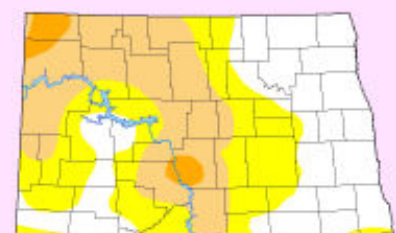
Drought Watch

Last week was very dry except in a few towns along the eastern edge of the state. Drought conditions worsened in northwestern and central regions. Forecasts for the next two weeks are not encouraging. They call for “below normal” rainfall amounts along with “above normal” temperatures. This may negatively impact lawns, which typically thrive this time of year. Sources: Drought Monitor and NOAA.



September 8, 2020

- Abnormally dry: 61% of state.
- Moderate drought: 24% of state.
- Severe drought: 1% of state.



September 15, 2020

- Abnormally dry: 63% of state.
- Moderate drought: 33% of state.
- Severe drought: 3% of state.