

A Better Buckthorn

When buckthorn was brought to North Dakota by European settlers, it thrived and became popular.

The settlers admired the beautiful, dark-green leaves and jet-black berries of the plant.

They were most impressed by how tough buckthorn was. It could grow under the harshest conditions including poor soils, drought, cold winters and hungry deer.

Buckthorn was both beautiful and easy to grow. It was the perfect shrub!

Not quite. Buckthorn was too easy to grow. It was so adaptable that it started to grow everywhere—even where gardeners did not want it to grow. Birds would eat the berries and deposit the seeds everywhere.

Buckthorn became an invasive weed forming dense thickets in parks, forests and along roadsides.

Today, common (*Rhamnus cathartica*) and glossy (*R. frangula*) buckthorns are illegal to grow in several states including Minnesota (but not in North Dakota).

Today we have great news. There is a non-invasive buckthorn available: Fine Line® glossy buckthorn.

Fine Line® was discovered as a seedling in a Wisconsin garden. It stood out for its unique combination of an upright habit with graceful, narrow leaves.



Fine Line® buckthorn is beautiful, easy to grow, and not invasive.

These leaves are glossy green in summer, turning yellow in fall. The leaves later turn brown, staying on the shrub for much of the winter.

Fine Line® has a columnar shape, growing 5 to 7 feet tall and only 2 to 3 foot wide.

It is widely used for hedges, privacy screens, or as an accent plant. The shrub works well as a framing plant for doors and pathways.

Fine Line® buckthorn has all the great, easy-to-grow qualities of buckthorn—but is not invasive.

It produces few fruits, and among those fruits, few can germinate. A

study showed 3% of Fine Line® seeds germinated compared to 98% of standard glossy buckthorn seeds.

Fine Line® is vastly superior to the old, weedy cultivars of buckthorn. It is widely available from nurseries in our state that offer Proven Winners selections.

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Bugs in Fall



Bon Voyage, Monarchs!

The days are getting shorter and colder. We can sense winter is coming and so can the monarchs of North Dakota. They are well underway on their migratory flight to Mexico, a remarkable trek of over 2,500 miles.

They'll fly 25 miles or more each day and gather together each night to stay warm (*shown*). Remarkably, they will spend winter in the same villages their ancestors spent last winter in.

Monarch populations have declined over the past 25 years. This is partly due to the loss of overwintering sites in Mexico. In the USA, monarchs have lost breeding sites due to expansion of agriculture and the increased use of herbicides, which kill the milkweeds they live on.

This spring we were encouraged by the large numbers of monarchs that migrated from Mexico to the Central and Eastern USA. For the most part, these monarch populations did well this summer, with the exception of those in the Dakotas and western Minnesota where drought harmed them.

We can support monarchs by reducing any unnecessary use of insecticides and by growing ornamental milkweeds in our gardens. Monarchs cannot survive without milkweed.

There are 25 sanctuary gardens for monarchs in North Dakota, as designated by Monarch Watch. Go to monarchwatch.org to see how you can establish a sanctuary garden and support these butterflies.

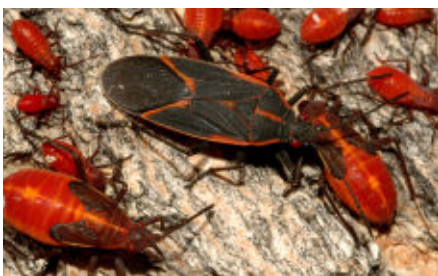
Chirping Crickets

Crickets are chirping at night. These are male crickets scraping their wings together to attract a female, threaten a male, or sound a danger alert.

Folklore says you can estimate the temperature outside by counting the number of chirps in 15 seconds and adding 37.

Prevent crickets from entering your home by caulking any cracks along doors, windows and the foundation. Remove debris near your foundation. Reduce outdoor lighting, which attracts crickets. Insecticides may be sprayed near entries. Crickets die from frost.

Crickets that wander into the house rarely reproduce. They feed on cotton, linen and other natural fabrics but typically starve to death.



Boxelder Bugs

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



Thirsty, Aggressive Wasps

Populations are soaring. Keep drink containers (*shown*) and garbage cans sealed. Destroy nests found in hazardous areas. Apply a knock-down spray or Sevin dust into the hole of the nest. Spray at night; a cool night (50s) is best.



Swarms of Winged Ants

These ants are mating. The females will later remove their wings and start a new nest. Outdoor swarms are harmless; leave alone or soak with soapy water. Indoor swarms may suggest an indoor nest; use baits containing boric acid.

Vegetables and Fruits



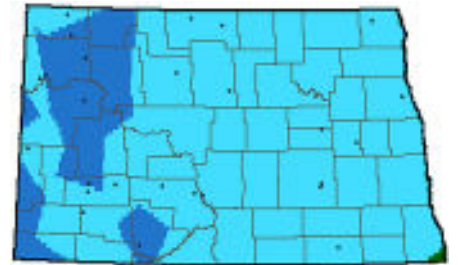
Frosty Weather Champs and Chumps

Get your garden blankets ready. The first frost is coming soon for most of us. Here are vegetables that tolerate frost and those that don't:

Tolerate Hard Frosts (28 °F and below): Broccoli, Brussels sprouts, cabbage, kale, kohlrabi, turnip.

Tolerate Light Frosts (29–32 °F): Beet, carrot, lettuce, onion, radish, spinach, winter squash.

Tolerate No Frosts: Bean, cucumber, eggplant, melon, okra, pepper, potato, summer squash, sweet corn, tomato.



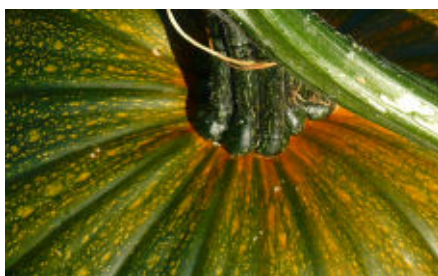
Approaching Frost

In a normal year, most gardens in ND suffer their first light frost (32 °F) from September 21 to 30 (shown in light blue). Gardens in the northwest are frosted earlier, September 11 to 21 (dark blue). Hard frosts of 28 °F occur about 10 days later. To find your expected frost date, Google “Dave’s Garden Frost Dates.”



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.



When to Harvest Pumpkins?

Harvest before a hard frost (28 °F). Leave a few inches of stem attached. Bring indoors during hard frosts.

Green 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, putting the green side toward the sun.



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.

Lawns

Now is the Time to Kill Weeds

Killing weeds with herbicides requires us to balance the benefits and risks. We all desire an attractive and weed-free lawn, but nobody wants to expose themselves to poisonous chemicals.

My recommendation is to have realistic expectations with your lawn and use herbicides only when they are necessary and effective.

That said, now is the most effective time to kill weeds in lawns.

To kill perennial weeds such as dandelions, thistles and clover, we need to get the herbicide down into their roots.

Weeds are now sending their nutrients down into their roots in preparation for winter. If we spray now, a weed will send the herbicide along with its nutrients down into its roots. Success!

A spray done once per year—now in fall—can control most broadleaf weeds and minimize our exposure to poisonous chemicals.



Another sensible strategy is to spot-spray in weedy areas rather than spraying the entire yard. This will reduce the exposure of us and our landscape plants to herbicides.

Trimec formulations are commonly available and work well. These products contain a blend of 2,4-D, MCPP and dicamba. Some contain quinclorac as well.

Follow the instructions on the label. Mix at the proper rate. Wear protective clothing.

To prevent herbicide drift, do not spray when temps are in the

high 80s. Spray when winds are calm, and use heavy droplets rather than fine mists.

Other cultural practices can reduce our need for herbicides. Mow your turf tall, let grass clippings fall to the soil, and fertilize your lawn. These practices can create a thick turf that smothers emerging weeds.

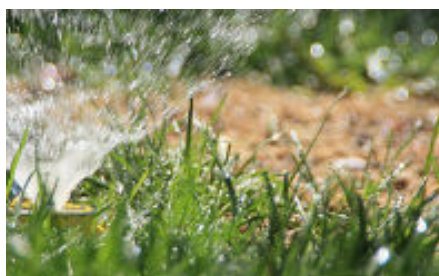
If you are going to use herbicides to kill weeds in your lawn, make it count.

Now is the time.



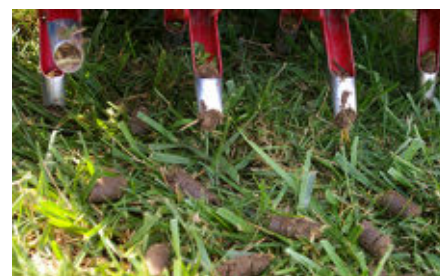
Fertilize Lawns

September is the best month to fertilize. This feeding will repair damage caused by summer, develop a thicker turf and root system, and prepare the lawn for winter. Select a fertilizer with about 10% potash (the third number on the bag) to reduce drought and winter stresses.



Sowing Grass Seed

Sowing now is very risky, especially in the north. Mid-September is the recommended deadline. Keep soil moist to promote quick establishment. An alternative option is to sow in November; the seed will stay dormant over winter and then sprout in spring.



Aerate Lawns

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. Best results are attained when the soil is slightly moist.

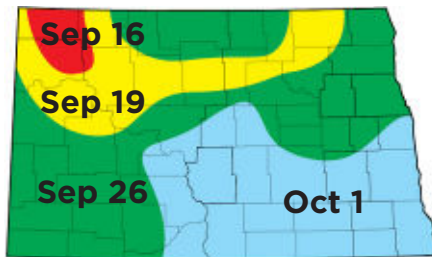
Landscapes

Trees and Shrubs



Fall Needle Drop

Relax. You don't worry when your leafy trees drop their leaves in fall. The same holds true for evergreens. The old needles in the inner canopy are supposed to drop. It's natural and beneficial to the tree.



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, particularly with evergreens.



Overwinter Geraniums

Dig your geraniums before frost; repot using potting soil. Cut back to one-third their height to keep plants bushy. Set near a bright sunny window. Cool temps (60s) are best. Water sparingly over winter.



Long-Lasting Tulips

Darwin hybrids last for years longer than standard types. Select big bulbs (at least 11/12 cm), plant ASAP to establish strong roots. Apply a time-released bulb fertilizer and irrigate. Varieties include the 'Impression' and 'Apeldoorn' series.



Coleus, Impatiens Cuttings

Collect 5-inch cuttings, cutting just below a leaf node. Remove leaves from the bottom half. Set in lukewarm water in bright, indirect light. Change water if it gets cloudy. Grow roots to 2+ inches. Grow in potting soil.

Credits

Sources:

Klingaman, G. Plant of the Week: Buckthorn, 'Fine Line'. University of Arkansas. <https://www.uaex.edu/yard-garden/resource-library/plant-week/buckthorn-fine-line-2-7-14.aspx>.

Lovett, J. Monarch Watch Update for August 2021. Monarch Watch. <https://monarchwatch.org/blog/>

Proven Winners. Fine Line® Buckthorn. <https://www.provenwinners.com/plants/rhamnus/fine-line-buckthorn-rhamnus-frangula>.

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11887115823; Midwestern Regional Climate Center, Purdue University; Fredrik Alpstred, www.flickr.com/photos/alpstred/11025803586/; 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/. **Page 4.** Martijn van Sabben, <https://www.flickr.com/photos/125993862@N06/26473456080/>; Tom Kalb, NDSU. Matt Lowden, <https://www.flickr.com/photos/matthewlowden/3594670268/>; Paul Tukey, <http://www.safelawns.org/blog/2010/10/now-is-the-time-to-aerate-if-you-must/>. **Page 5.** Tom Kalb, NDSU; Joe Zeleznik, NDSU; Jim Gourley, www.flickr.com/photos/rudenoan/8569434122/; Susan Ujka's Collection, www.flickr.com/photos/lit-linx/3438321158/. Rose Notes, www.rosenotes.com/2011/03/rooting-in-water.html. **Page 6.** Drought Monitor, University of Nebraska-Lincoln.

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

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EXTENSION

Weather Almanac for September 16–22, 2021

Site	AVG FROST ^{1,2}		TEMPERATURE ²				RAINFALL ^{2,4}				GROWING DEGREE DAYS ^{2,5}			
	Light (32°F)	Killing (28°F)	Sep 16–22				Sep 16–22		2021		Sep 16–22		2021	
			Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
Bottineau	9/21	09/27	57	55	84	28	0.13	0.32	8.48	12.89	77	54	2149	2015
Bowman	9/18	09/30	58	55	93	35	0.10	0.29	7.42	10.90	75	60	2205	2094
Carrington	9/26	10/05	59	56	82	37	0.32	0.40	8.11	14.85	74	58	2330	2169
Crosby	9/22	09/29	58	53	93	32	0.10	0.27	8.40	11.22	76	51	2109	1872
Dickinson	9/22	10/03	59	55	95	35	0.28	0.35	8.85	12.49	77	62	2320	2074
Fargo	9/27	10/05	63	58	84	45	0.31	0.53	12.11	15.39	79	58	2686	2321
Grafton	9/24	10/04	59	55	84	40	0.39	0.51	10.19	15.08	77	56	2335	2027
Grand Forks	9/20	10/05	60	55	79	42	0.23	0.44	8.90	14.74	77	56	2418	2077
Hazen	9/14	09/27 ⁶	60	57	89	36	0.14	0.33	7.95	12.64	82	69	2288	2278
Hillsboro	9/28	10/06	60	57	85	41	0.33	0.47	10.25	15.10	81	56	2453	2193
Jamestown	9/25	10/04	60	56	81	40	0.35	0.46	14.77	14.44	73	56	2318	2152
Langdon	9/17	09/28	58	53	83	38	0.47	0.41	13.17	14.71	70	46	2004	1734
Mandan	9/23	10/01	61	57	83	38	0.26	0.34	9.02	13.67	79	58	2457	2162
Minot	9/28	10/07	59	55	86	37	0.01	0.32	7.30	12.94	80	50	2242	1974
Mott	9/18	09/28	60	56	92	35	0.02	0.31	13.14	11.75	82	64	2282	2166
Rugby	9/21	10/04	58	54	81	34	0.12	0.41	9.84	14.45	73	55	2216	2009
Wahpeton	9/27	10/04 ⁷	64	59	88	40	0.16	0.63	13.20	16.05	89	63	2575	2424
Watford City	9/14	09/25	59	55	94	35	0.08	0.21	7.38	10.79	80	59	2337	2084
Williston	9/22	09/29	60	58	94	38	0.13	0.26	7.32	10.72	77	68	2375	2351
Wishek	9/18	09/27	59	56	80	42	0.43	0.27	16.25	12.40	64	54	2350	1974

DAYLENGTH (Sep 23, McClusky, center of ND)³

Sunrise: 7:30 AM Daylength: 12h 9m
 Sunset: 7:39 PM Change since Sep 16: -24m

LONG-TERM OUTLOOKS¹

Sep 28–Oct 2: Temp.: Above Normal; Precip.: Below Normal
 Sep 30–Oct 6: Temp.: Above Normal; Precip.: Normal

^{1,2,3} Sources: National Oceanic and Atmospheric Administration, North Dakota Agricultural Weather Network, www.sunrisesunset.com, respectively.

⁴ Measurements begin April 1.

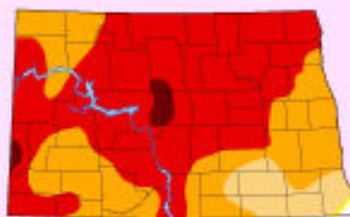
⁵ GDDs for garden vegetables are not available. GDD data in this table are for corn, which responds to temperature as most vegetables grown in gardens. Data begin May 1 with base minimum and maximum temperatures of 50 and 86°F, respectively.

^{6,7} Frost data for Beulah and Campbell, respectively.

Drought Watch

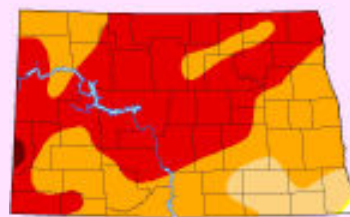
Beneficial, albeit not heavy rains reduced the severity of drought in the central part of the state. Warm temperatures and dry conditions continued throughout ND.

Over the next two weeks we can expect above normal temperatures along with normal to below normal amounts of rain. Sources: Drought Monitor, University of Nebraska; and National Weather Service.



September 14, 2021

- Abnormally dry: 100% of state.
- Moderate drought: 100% of state.
- Severe drought: 92% of state.
- Extreme drought: 60% of state.
- Exceptional drought: 2% of state.



September 21, 2021

- Abnormally dry: 100% of state.
- Moderate drought: 100% of state.
- Severe drought: 92% of state.
- Extreme drought: 52% of state.
- Exceptional drought: <1% of state.