

New, Colorful Coneflowers!

Purple coneflower has been a favorite flower here for decades. Its pale purple blooms are a magnificent site from summer to frost. Even in winter, the seed heads of coneflowers add beauty and attract lively birds to the frozen landscape.

Purple coneflower will always be a mainstay in Dakota gardens, but new hybrids with brighter colors and unique flower shapes are drawing a lot of attention.

I remember walking into a garden center a few years ago and seeing a stunning red flower. A *red* coneflower? Yes, and it had a fun name: ‘Tomato Soup’ (*bottom right photo*).

Now there are coneflowers named after cheddar cheese, cantaloupes, cranberries, vanilla milkshakes, hot papayas, wild berries and mandarin oranges—an amazing smorgasbord of colors to feast upon!

Several new varieties deserve special attention. ‘Cheyenne Spirit’ has won awards for its warm blend of colors and its stocky, wind-resistant plants (*top left*). Flowers come in shades of a prairie sunset: orange, gold, scarlet, cream and magenta. You can grow these from seed, making them very affordable. Sow in January and they will bloom in June and for many years thereafter. Plant them in mass to make a massive statement.

‘PowWow Wild Berry’ is another award winner that can be started from



Colorful coneflowers (shown from top left and clockwise): ‘Cheyenne Spirit’, ‘PowWow Wild Berry’, ‘Tomato Soup’ and ‘Southern Belle’.

seed (*top right*). Its basal branching habit leads to loads of blooms and a brilliant display. The petals show a rich purplish-rose color.

Lastly, check out the new pompom hybrids. ‘Southern Belle’ has pale pink petals topped by intense magenta-pink cones (*bottom left*). This and other “coneless” coneflowers are absolutely fascinating. Their blooms make eye-catching bouquets, too.

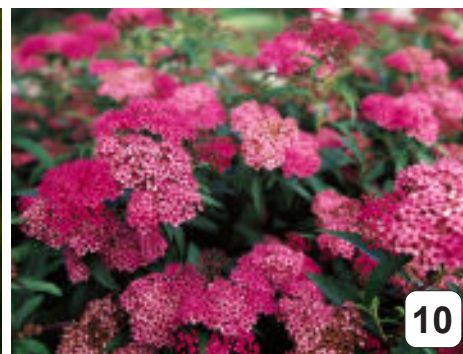
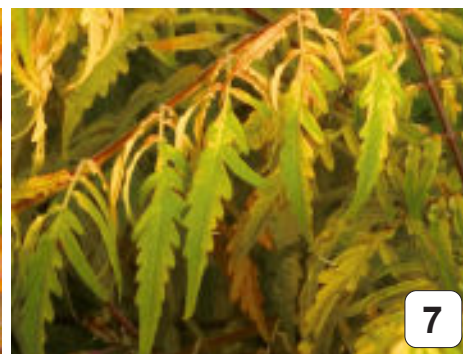
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Hardy, Drought-Tolerant Shrubs

These tough shrubs can withstand the cold, dry climate of North Dakota. Many are hardy to Zone 3 (–35°F). Can you match the shrubs with their names? Answers are on page 4. **Hardy to Zone 4 only.*

- | | |
|----------------------------------------------------|-------------------------------------------------|
| ___ Barberry, Japanese (<i>Rose Glow</i>)* | ___ Potentilla (<i>Goldfinger</i>) |
| ___ Honeysuckle, Bush (<i>FE® Cool Splash®</i>)* | ___ Rose, Rugosa |
| ___ Lilac, Dwarf Korean (<i>Palibin</i>) | ___ Spirea, Bumalda (<i>Anthony Waterer</i>)* |
| ___ Ninebark (<i>FE® Amber Jubilee™</i>) | ___ Sumac, Cutleaf (<i>FE® Tiger Eyes®</i>)* |
| ___ Peashrub, Siberian | ___ Viburnum, Wayfaringtree (<i>Mobican</i>) |



Planting Trees in Fall

Spring is usually the best time to plant trees but fall can be a good time as well. Nurseries may offer substantial discounts in fall (ask them about their guarantee policy).

When should I plant?

You need to give the roots of trees adequate time to become established before winter arrives. Roots keep growing until soil temps dip below 40°F. Ideal dates for fall planting are shown (Fig. 1). These deadlines will give tree roots about a month to grow. Planting trees after these dates may be successful, but chances for success diminish the later you get into the season, especially with evergreens.

How deep should I dig?

The tree should be planted so its root collar is slightly above the soil line (Fig. 2). Don't plant the tree too deep or it may develop roots that will later strangle the trunk.

Should I add special soil?

Let the tree adapt to the soil at the

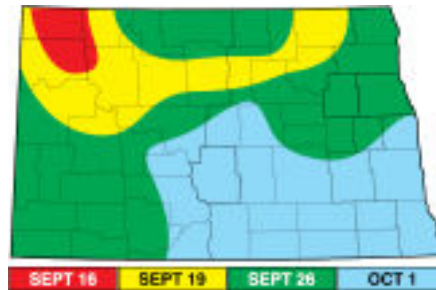


Fig. 1. Ideal planting dates.

site. Adding lots of amendments (for example, compost, peat moss or sand) in the hole may discourage tree roots from pushing out into the native soil. Trees planted now will not need fertilization until spring.

How often should I water?

Keep the roots moist throughout the planting process, and water the tree thoroughly after planting.

Check the tree every few days and water—but only if the soil is dry. A good general rule is a tree needs 10 gallons of water for each inch of its trunk diameter per week. Keep watering until the ground freezes. Do not water if the soil is already wet.

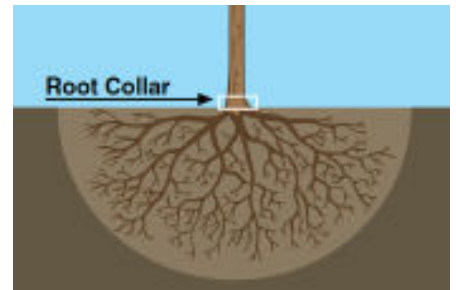


Fig. 2. Proper planting height.

Should I stake the tree?

Staking is often helpful, particularly with large trees and in windy spots. Use two to three stakes and wires with band/strap attachments. The wires should not come into direct contact with the tree bark.

The staking should allow for some movement of the trunk, which will encourage stronger roots. Remove the staking after 1-2 years.

Should I mulch the tree?

Yes. A ring of shredded bark or wood chips will conserve moisture, prevent extreme soil temperatures, protect the roots from shifting in winter, reduce weeds, reduce competition from turf, and protect the tree from mowers.

Use the 3-3-3 rule: the ring of mulch should be at least 3 feet in diameter, 3 inches deep and not be closer than 3 inches to the trunk.

Should I prune the tree?

Remove only broken or dead branches.

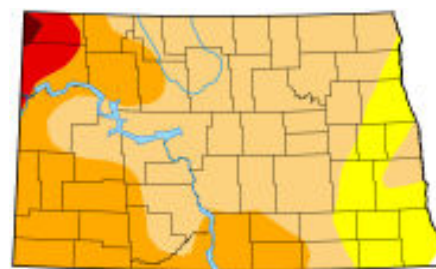
Should I wrap the tree?

Yes. Wrap the tree later this fall to protect it against sunscalding over winter. Kraft tree wrap paper or a white drain pipe will work. The drain pipe can also protect against rodent damage.

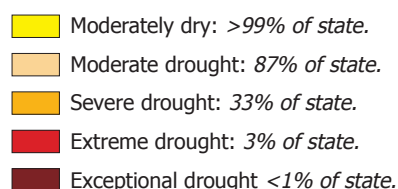
Drought Watch

Drought persists in all but the far eastern portion of ND. Rains over the past two weeks have provided some relief to some of the drier areas of the state, especially in the northwest.

This garden season is nearly over. We will need to monitor soil moisture levels to make sure our perennial flowers, trees and shrubs have adequate moisture heading into winter. The 10–14 day forecast calls for below average rainfall. Details of our recent weather and the growing season are presented on page 6.



September 19, 2017



Chores & Challenges

Vegetables



When to Harvest Pumpkins?

Harvest before a killing frost (28°F). Leave a few inches of stem attached. Do not bruise. Cure in a warm (80°F) spot for 10 days for long-term storage.



When to Harvest Squash?

Harvest before a killing frost (28°F). Leave at least one inch of stem. Wipe but don't wash fruit. Except for acorns, cure in a warm (80°F) spot for 10 days to toughen skin for long-term storage.



Slow to Ripen Tomatoes

Be patient. Optimal ripening temps are 68–77°F. The more temps stray from this range, the slower ripening occurs. Clipping vines won't help. Tomatoes with a blush may ripen indoors.

Fruits



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 Apples?

The background color (seen at the top and side of fruit) begins to turn from green to yellow. Fruits come off easily when harvested. Use an upward, twisting motion when harvesting.



Start a New Berry Patch

Now is a good time to prepare land for next year's garden or berry patch. Spray glyphosate (Roundup) on turf or a weedy area. Cultivate the land in two weeks and you will be ready for spring.

Lawns



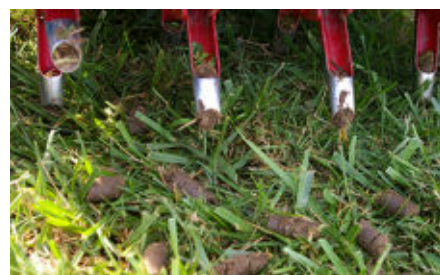
Kill Perennial Weeds

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.



Seeding

Sowing now is risky, especially in northern areas. Mid-September is the general deadline. An alternative is to wait and sow in November; this seed will sprout in spring.



Core Aeration

Hollow tine aerators are recommended. Remove cores as deep as possible. Let cores dry for a couple days; mow to break them up. Best results are obtained when the soil is slightly moist.

Chores & Challenges

Trees and Shrubs



Fall Needle Drop

Old needles (located near the trunk) are *supposed* to drop. If young needles (located near the tips of branches) are healthy, the tree is full of life.



Early Fall Color, Leaf Drop

Drought stress may cause healthy trees to shed leaves prematurely. Trees lose water through leaves and shedding them can be a mechanism for survival. Healthy trees should come back fine next year.



Woolly Oak Galls

Fuzzy, white or pinkish bumps form on oak leaves. These galls were caused by cynipid wasps feeding on the leaves. Leaf galls have minimal effect on tree health and can be ignored.

Ornamentals



Frost-Sensitive Annuals

Very sensitive annuals include impatiens (shown), zinnia, begonia, celosia and coleus. Hardier flowers include petunia, aster, cosmos, dianthus and snapdragon.



Overwinter Geraniums

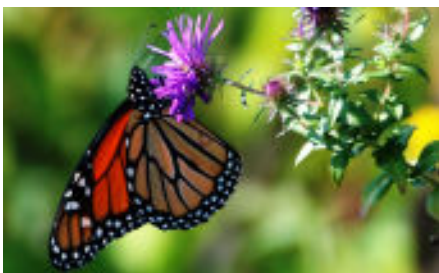
Dig before frost. Repot using potting soil. Cut back to one-third height to keep plants bushy. Set near a bright sunny window. Cool temps (60s) are best. Water sparingly over winter.



Propagate Coleus

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.

Migrating Insects



Monarchs

They have begun their flight to Mexico, a trek of over 2,500 miles. They'll fly 25 miles or more each day. Populations have declined over the past 20 years, but scientists are optimistic this year.



Boxelder Bugs

Bugs will congregate on sunny walls to stay warm. Seal crevices along doors and windows. Spray bugs with detergent (3–5 tbsps) per gallon water. Continue spraying as bugs appear.

1. Barberrry, Japanese
2. Viburnum, Wayfarer tree
3. Peashrub, Siberian
4. Honeyuckle, Bush
5. Rose, Rugosa
6. Ninebark
7. Sumac, Cutleaf
8. Lilac, Dwarf Korean
9. Potentilla
10. Spirea, Bumalda

Hardy, Drought-Tolerant Shrubs

Weather Almanac for September 8–21, 2017

Site	HARD FROST ^{1,2} (28°F)		TEMPERATURE ² Sep 8–21				RAINFALL ^{2,4} Sep 8–21 2017				GROWING DEGREE DAYS ^{2,5} Sep 8–21 2017			
			Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
	2017	Norm												
Bottineau	None	09/27	58	57	94	34	1.39	0.65	8.81	12.84	140	132	1992	2007
Bowman	None	09/30	60	58	96	33	1.97	0.58	6.06	10.86	154	145	2199	2085
Carrington	None	10/05	60	58	95	39	1.75	0.90	12.34	14.80	148	140	2079	2160
Crosby	None	09/29	57	55	91	34	1.46	0.56	5.34	11.18	125	125	2113	1864
Dickinson	None	10/03	60	57	97	34	2.24	0.69	7.75	12.44	150	147	2277	2064
Fargo	None	10/05	65	60	92	44	0.73	1.21	8.34	15.32	200	141	2332	2312
Grafton	None	10/04	61	57	94	37	1.94	1.12	9.93	15.01	162	135	2020	2018
Grand Forks	None	10/05	62	57	91	40	2.52	0.93	12.83	14.67	170	133	2212	2068
Hazen	None	09/27 ⁶	58	59	96	33	0.83	0.65	9.45	12.59	143	161	2173	2267
Hillsboro	None	10/06	62	59	92	38	4.84	0.99	11.72	15.04	169	135	2120	2184
Jamestown	None	10/04	60	58	95	40	0.65	1.06	10.34	14.37	149	134	2039	2143
Langdon	None	09/28	59	55	91	39	0.98	0.84	8.86	14.65	137	113	1739	1727
Mandan	None	10/01	61	59	93	33	1.04	0.70	10.63	13.62	162	139	2253	2153
Minot	None	10/07	59	57	96	37	1.62	0.66	7.59	12.89	144	122	2130	1966
Mott	None	09/28	60	58	98	33	0.97	0.61	6.83	11.70	156	154	2212	2156
Rugby	None	10/04	59	56	96	38	0.57	0.82	9.09	14.39	144	132	2050	2000
Wahpeton	None	10/06 ⁷	63	61	90	41	2.14	1.35	17.02	15.96	186	150	2187	2414
Watford City	None	09/25	59	57	93	34	1.89	0.43	7.86	10.75	141	142	2265	2075
Williston	None	09/29	59	60	95	34	1.73	0.52	8.16	10.68	138	160	2327	2340
Wishek	None	09/27	61	58	93	37	0.40	0.95	7.88	14.64	164	132	2082	1966

DAYLENGTH (Sep 21, McClusky, center of ND)³ LONG-TERM OUTLOOKS¹

Sunrise: 7:27 AM Daylength: 12h 16m Sep 28–Oct 2: Temp.: Above Normal; Precip.: Below Normal
 Sunset: 7:43 PM Change since Sep 7: –47m Sep 30–Oct 6: Temp.: Above Normal; Precip.: Below Normal

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

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.

Credits

Sources:

University of Nebraska. 2017. Drought Monitor, droughtmonitor.unl.edu/Home.aspx.

Zeleznik, J. and E. McGinnis. 2016. Tree planting in North Dakota. North Dakota State University.

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