

Fast-Growing Shade Trees

We live in a *fast*-paced society. We want everything *fast*—the faster the better. This includes our desire for instant landscapes. We want trees that grow fast and provide quick shade.

Fortunately, there are many outstanding fast-growing trees for landscapes in North Dakota:

Researchers have identified American elms that resist Dutch elm disease. *Prairie Expedition*® (an NDSU selection), 'Jefferson' and *St. Croix*™ have the classic arching branch habit that made American elm, our state tree, cherished for centuries. Asian hybrid elms have been bred that resist the disease. These include *Triumph*™ and *Accolade*®, both known for their rich green foliage.

It's easy to grow a great lawn under the open, airy leaves of a honeylocust. The hardiest variety is *Northern Acclaim*® from NDSU.

Hybrid poplars may grow five or more feet every year. Local nurseries may offer superior clones selected from the USDA lab in Mandan. Several varieties have columnar habits that allow them to be used to create a privacy screen quickly.

Cottonwood is one of the largest, fastest growing trees in North Dakota. Superior selections include 'Siouxland', 'Skyfest' and 'Robusta'; none of these produce messy cotton.

Prairie Reflection® laurel willow from NDSU is special. It's a 35-foot-



Fast-growing shade trees (clockwise from top left): American elm, thornless honeylocust, poplar and laurel willow.

tall tree with very dark green leaves that glisten in the sun. 'Chermesina' redstem willow has more of an upright habit than weeping willow, and its orange-red stems are showy in winter.

Other fast-growing trees with flaws can be a good choice in the right spot. This includes silver maple (intolerant of alkaline soil), boxelder and weeping willow (weak branching) and quaking aspen (suckers).

For more information, see the NDSU Tree Selector tool at www.ag.ndsu.edu/tree-selector/.

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Countdown to Frost

When will my garden *really* start producing? I can't wait!

That's a common feeling among gardeners today. First, we got off to a slow start due to the record cold temperatures this spring. Now our crops are flowering, but fruit setting has been uneven due to the extreme heat. Temperatures in the high 80s scorched the pollen of many flowers, preventing them from setting fruits.

Cucumber and squash vines have lots of flowers—but few fruits. Baby melons can be found on the vine—but will they ripen in time?

Bell pepper blossoms were burned. Now gardeners are waiting for their next flush of flowers.

Other gardeners are starting to see red tomatoes in their garden, only to

Days from pollination to harvest under warm growing conditions.

Crop	Days
Beans	7–18
Cantaloupe	40–50
Corn (from 50% silking)	18–23
Cucumber, pickling	4–5
Cucumber, slicing	15–18
Eggplant	25–40
Okra	4–6
Pepper (green bell)	45–55
Pepper (red bell)	60–70
Pumpkin (jack-o'-lantern)	60–90
Squash, summer zucchini	3–4
Squash, winter acorn	55–60
Squash, winter butternut	60–70
Tomato (mature green)	34–45
Tomato (red ripe)	45–60
Watermelon	40–50

Source: Midwest Vegetable Production Guide for Commercial Growers 2018.

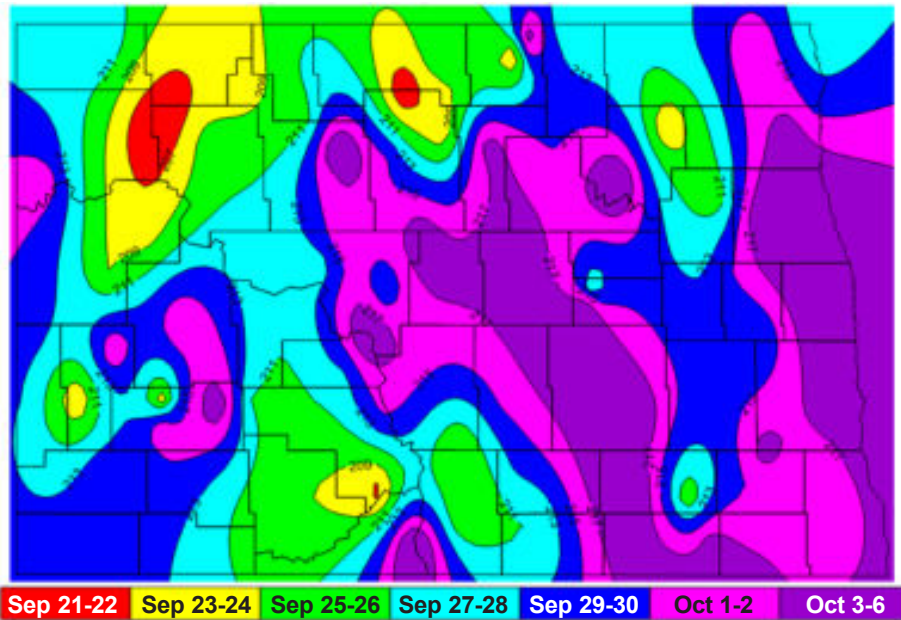
discover these first fruits were ruined by blossom end rot.

Will they ever get a full-sized red, ripe tomato before frost?

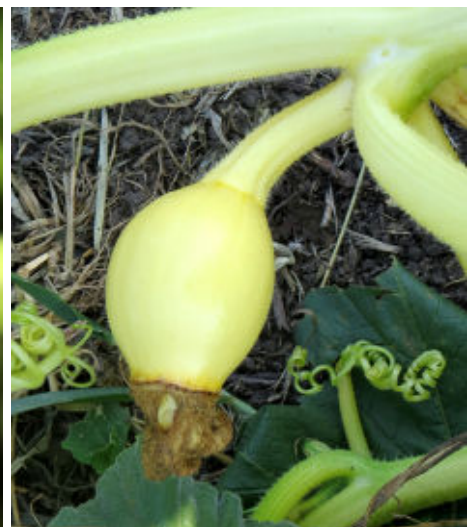
Start by checking your first expected frost date (see map). Now check the table (bottom left) to see the expected days required from pollination to harvest.

Looking ahead to this fall, the National Weather Service sees no strong trends for temperatures in North Dakota from August to October 2018. It's just as likely that we will have "below normal" as "above normal" temperatures.

Let's hope for a late frost!



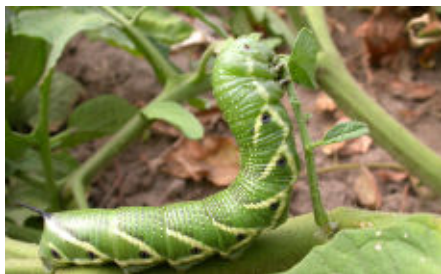
Average first date of killing frost (28°F). Source: North Dakota State Climate Office.



Will this tiny tomato ripen into a full-sized tomato before frost? Probably. Will this tiny pumpkin ripen into a full-sized jack-o'-lantern? Probably not.

Plant Health Care

Vegetables and Herbs



Hornworm on Tomato

Giant (3–4 inches), green caterpillars devour vines of tomato, nicotiana, potato and pepper. Only one or few larvae are found per plant. Remove and crush or toss into soapy water.



Blossom End Rot

Caused by calcium deficiency and associated with uneven soil moisture. Often prevalent on first fruits. Keep soil moist and do not damage roots when cultivating. Mulch vines.



Sunscald

Bleached white or tan, papery spots occur on sun-exposed fruits. More likely on staked plants with lack of foliage. Promote healthy vine growth by keeping pests and diseases in check.



Harvesting Herbs

Oils are highest in the midmorning. Snip basil above a new set of leaves. Snip stalks of dill and cilantro at base. Pinch flower buds before they open to extend harvest. For perennials, remove only about one-third of top growth.



Blooming Onions

Bolting occurs when plants are stressed. The quality of the bulbs deteriorates rapidly. Harvest and use promptly. Flowering onions will not store well over winter.



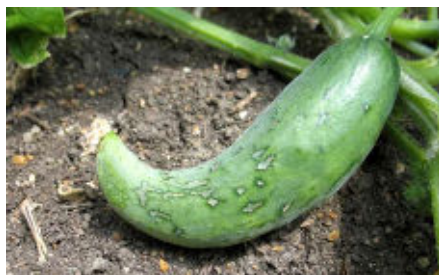
Worms in Broccoli

Moths lay eggs on cabbage and broccoli. Eggs hatch into larvae that create tunnels. Spray with *Bacillus thuringiensis* while caterpillars are small. Carbaryl or pyrethroids are used on mature caterpillars.



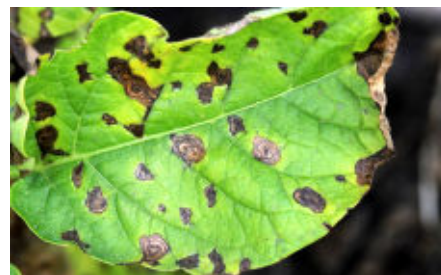
Powdery Mildew

Spray with chlorothalonil, copper or sulfur to protect new growth. Reduce humidity and increase air circulation. Thin the planting, if needed. Water only in morning. Use resistant varieties.



Deformed Cucumbers

Caused by insufficient pollination due to extreme temps or lack of bee activity. Avoid using insecticides, especially carbaryl, when vines are blooming. Limit sprays to evenings.



Early Blight on Potato

Brown lesions with rings inside. Remove infected foliage. Protect with fungicides chlorothalonil, mancozeb, or copper. Avoid overhead irrigation. Clean up garden. Look for resistant varieties.

Plant Health Care

Trees and Shrubs



Toxic Fruits?

Fruits of tatarian and most other honeysuckles (*Lonicera*) are red and mildly toxic. To identify, honeysuckle leaves are *opposite* to one another. Never eat the fruits of a mysterious plant.



Chemical Burn

Fertilizer sprays or granules can burn foliage if applied on hot, sunny days. New growth will be healthy and plants will recover.



Leaf Spots on Poplars

Poplars and aspens subject to leaf blights are shedding leaves. Rake leaves to get fungi out of the area. Pruning helps to reduce humidity and diseases in canopy; do this in March.



Powdery Mildew

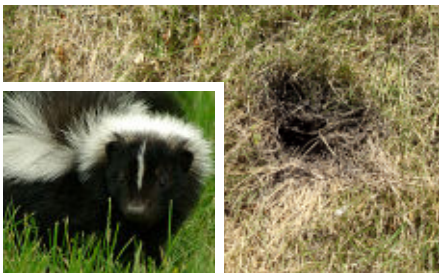
Gray blotches appear on leaves. Lilac, rose, honeysuckle are often affected, especially in shady spots with poor air circulation. Rake fallen leaves. Prune to increase sunlight and air movement.



Leaf Scorch

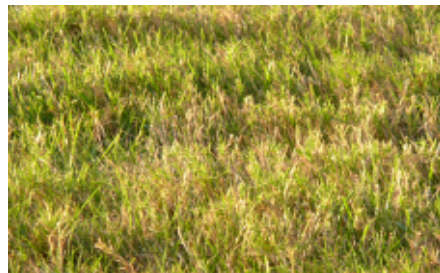
Leaf margins turn brown, especially on the south and west sides of the canopy. This most commonly occurs in urban sites, sandy soils, and with young trees. Irrigate deeply.

Lawns



Skunks and Grubs

Skunks dig for grubs at night, creating small holes in infested lawns. Kill grubs with carbaryl or trichlorfon; skunks will hunt elsewhere. Outdoor lighting or ammonia-soaked rags will repel skunks.



Yellowing

Non-irrigated lawns go dormant due to summer heat. Avoid fertilizing and using herbicides. Mow tall, if needed. Lawns will awaken when temperatures cool off in fall.



Foxtail

Annual grass will die from frost. Mow foxtails growing in the lawn, or pull plants from the garden to prevent seed dispersal. In lawns, apply fertilizer with crabgrass preventer next spring.

Weather Almanac for July 29–August 4, 2018

Site	TEMPERATURE ¹				RAINFALL ^{1,4}				GROWING DEGREE DAYS ^{1,5}			
	July 29–Aug 4				July 29–Aug 4		2018		July 29–Aug 4		2018	
	Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
Bottineau	67	69	94	44	0.00	0.48	8.13	10.14	102	114	1489	1318
Bowman	71	71	98	45	0.19	0.36	9.70	9.13	122	126	1426	1327
Carrington	68	70	89	48	0.00	0.56	8.62	11.39	109	121	1615	1434
Crosby	69	68	92	48	0.00	0.43	7.50	9.02	109	108	1464	1207
Dickinson	73	70	99	49	0.02	0.43	9.69	10.08	124	125	1554	1323
Fargo	68	71	90	43	0.31	0.50	10.03	11.14	107	128	1821	1544
Grafton	65	68	88	40	0.05	0.56	10.05	10.53	96	112	1577	1338
Grand Forks	65	69	87	40	0.00	0.61	10.55	10.67	98	114	1672	1374
Hazen	69	72	100	43	0.02	0.44	6.51	10.15	106	126	1543	1469
Hillsboro	65	71	88	40	0.06	0.61	9.03	11.35	98	126	1670	1453
Jamestown	66	71	88	43	0.00	0.49	12.62	10.82	98	125	1567	1427
Langdon	63	66	84	38	0.00	0.58	7.35	11.14	91	101	1407	1137
Mandan	72	71	99	49	0.07	0.62	9.41	10.72	120	126	1642	1409
Minot	70	69	98	49	0.09	0.46	6.12	10.14	113	114	1566	1289
Mott	72	71	99	44	0.17	0.35	7.82	9.47	121	126	1535	1386
Rugby	69	69	96	47	0.13	0.61	8.04	11.32	109	114	1525	1324
Wahpeton	66	72	90	41	0.13	0.50	10.71	11.66	101	132	1765	1604
Watford City	72	71	95	52	0.14	0.38	7.35	8.85	121	126	1545	1351
Williston	72	73	94	54	0.02	0.39	9.08	8.46	121	132	1556	1516
Wishek	67	69	91	48	0.02	0.51	10.72	9.69	105	114	1524	1281

DAYLENGTH (Aug. 6, McClusky, center of ND)²

Sunrise: 6:26 AM Daylength: 14h 44m
 Sunset: 9:10 PM Change since July 30: -19m

LONG-TERM OUTLOOKS³

Aug. 11–15: Temp.: Above Normal; Precip.: Below Normal
 Aug. 13–19: Temp.: Above Normal; Precip.: Normal

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

^{4,5} Rain data begin April 1. 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.

Credits

Sources:

Bailey Nurseries, Bergeson Nursery, Jeffries Nurseries, Lincoln Oakes Nursery. 2018. Online catalogs.

Herman, D.E. and V.C. Quam. 2006. Trees and shrubs for Northern Great Plains landscapes. North Dakota State University.

North Dakota State Climate Office. 2018. Accessed online.

Purdue University. 2018. Midwest Vegetable Production Guide for Commercial Growers 2018. Page 33.

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