

YARD & GARDEN REPORT

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Secrets for Growing Sweet Potatoes

Can you grow quality sweet potatoes in North Dakota? Sweet potatoes are from the *tropics*. They like a hot, long growing season and we have one of the coldest, shortest growing seasons in the USA. Most sweet potato roots grown in North Dakota are scrawny and yields are low.

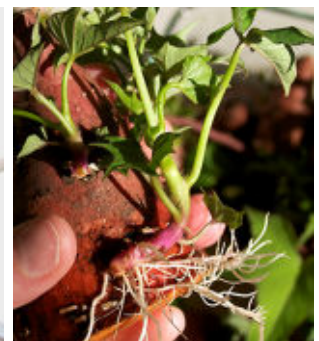
There's hope. Corey and Jessica Silvernagel from Lincoln have proven you can grow good crops of quality roots in North Dakota.

They start by growing their own slips (sprouts). In mid to late March, they take sweet potatoes from the grocery store, cut them in half and place the cut ends in water. Many of us have done this as kids for school projects (*Fig. 3*). Once a plant develops into a 4-inch slip, they break it off and put it into a glass of water (3/4 inch deep) to form more roots. New slips can alternatively be set in potting soil to grow more roots.

In mid to late May, they set out the slips. The slips are placed into small mounds spaced 4–5 feet in both directions. They spread the roots out when planting and set each slip so its crown is 1 inch deep.

Once the temps warm up, the vines sprawl over the garden like a rich green carpet. The Silvernagels applied sheep manure to their garden this spring, but otherwise they do not fertilize the plants.

Sweet potatoes require a long growing season and the family protects the vines from light frosts by covering them with blankets. Harvest commences after a hard frost.



Figs. 1–4. Sweet potatoes can be grown in North Dakota. Growing your own healthy slips can lead to good yields of quality roots.

Harvested roots (8 pounds per plant) are cured near the furnace and stored in the basement. They showed me roots from last year's harvest and the roots were still firm and just beginning to sprout (*Fig. 1*).

The secret seems to be growing your own slips. Their slips have healthy root systems and never suffered shock before being set in the garden. In contrast, slips purchased from garden centers and seed companies obviously suffer significant stress when dug, cooled and later

transported across the country.

Can we grow quality sweet potatoes in North Dakota? Absolutely! Seeing is believing.

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Loving Your Lawn

If you want a great lawn, now is the time to take action.

Early September is the best time to fertilize your lawn. The secret to growing a lush lawn is to develop a thick root system. Your lawn grows most of its roots in fall. Fertilize now to develop more roots.

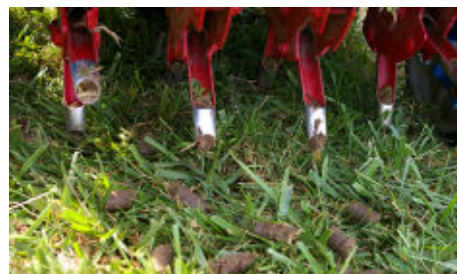
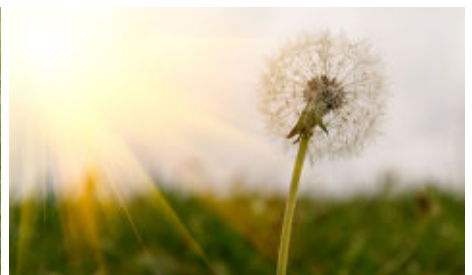
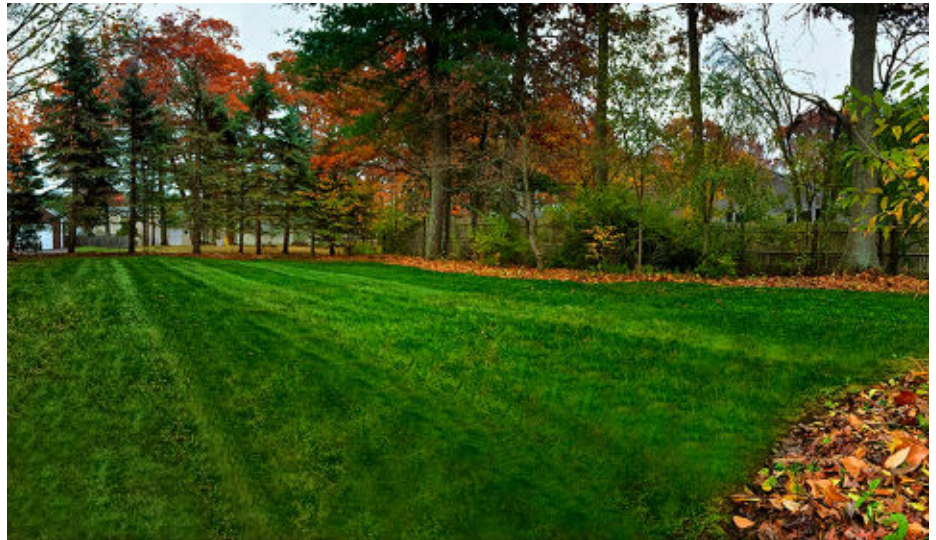
A soil test can indicate the best fertilizer for your lawn, but a standard winterizer lawn fertilizer (30-0-10 or something similar) works well in most cases.

September is the best time to control perennial weeds (thistle, dandelion and ground ivy). The key to killing these weeds is to get the herbicide down into their roots. In fall, weeds channel their nutrients down into their roots to prepare for winter. If we spray a weed in mid- to late September, it will channel the herbicide (along with its nutrients) down into its roots. Goodbye weed!

The test of a true lawn lover is whether or not they aerate their lawn. I think a lawn receiving an aeration is comparable to a person receiving a massage. Does it feel good? Yes. Do most of us actually need it? Not really.

The vast majority of lawns never need to be aerated, but they all will enjoy it. **September is the best time to aerate the lawn.** This is when roots grow and aeration promotes new roots. Compacted ground (walkways and heavy soils) and turf with a thick thatch layer (over 1 inch) will benefit most.

Hollow tine or core aerators are recommended because they create air pockets by removing plugs of soil/thatch (cores) from the turf. Let the cores dry for a couple days and then mow to break them up. Remove cores as deep as possible (about three inches) when aerating. Best



Figs. 5–9. Do you want a great lawn? September is the best month of the year to fertilize, kill weeds, aerate and overseed. It's time to get busy!

results are obtained when the soil is slightly moist but not wet. If the soil is dry, irrigate it one or two days before aerating.

You can fertilize after a core aeration to encourage the recovery of the turf. Lawns may be overseeded after aeration, too. **Now through mid-September is the best time to overseed a lawn.** The ground is warm and the seed will germinate quickly. Weed seedlings are a threat to new sowings, but weeds are less likely to germinate in fall than spring.

Solid tine aerators, spikers and spiked shoes can be used for overseeding but they do a poor job of aerating. They actually compact the ground by pushing soil down when they create their holes.

Vertical mowers (dethatchers) can be used to remove excessive thatch, and **September is the best time for dethatching.** Try to avoid cutting into the soil with the blades. Rake away the debris. Overseeding can be done to fill in any gaps created by the dethatching.

Survey of problems found in North Dakota yards and gardens:

TREES AND SHRUBS



Rosette virus on roses

Symptoms include distorted and red leaves, compacted habit and excessive thorniness. Place a bag over plant and remove it along with its roots. Avoid dispersing virus-transmitting mites.



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.



Early leaf drop of poplar

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

FRUITS



Fall webworm

Caterpillars eat leaves but cause minimal damage. Control is rarely needed on mature trees but young trees may be sprayed with *Bacillus thuringiensis*, pyrethrin or carbaryl.



Scab on apple/crabapple

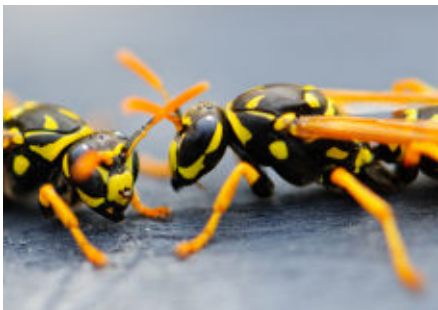
Rake fallen leaves and fruits. Prune tree in March to get better sunlight and air flow in canopy. Spray mancozeb, chlorothalonil, captan or copper on leaves as they emerge in spring.



Codling moth

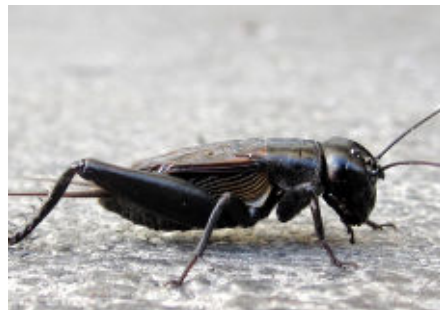
Slice the fruit to reveal tunnel and worm. Remove fallen fruits. Use traps in spring for monitoring. Spray insecticide after petal fall and 7–10 days later. Spray again if needed.

INSECT PESTS



Aggressive wasps

Populations soar until a hard frost kills them. If nest is in a hazardous place, identify and destroy it. Apply a knock-down spray in hole of nest. Spray at night; a cool night in the 50s is best.



Crickets

Seal windows, doors and foundation. Reduce outdoor lighting. Remove debris near foundation. Insecticides may be sprayed near entries. Crickets die from frost. They will starve indoors.



Grubs

Grubs eat roots, creating dead spots. Peel back damaged turf to reveal pests. If more than 3 grubs per square foot, treat with carbaryl or trichlorfon. Irrigate deeply to get chemical in soil.

Survey of problems found in North Dakota yards and gardens:

VEGETABLES



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.



Septoria on tomato

Small (1/8-inch), numerous spots begin on lower leaves. Remove infected foliage. Avoid getting foliage wet. Fungicide sprays (chlorothalonil, mancozeb, copper) prevent spread.



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.



When to harvest watermelon?

Watermelons are ripe when the tendril next to the fruit dries (shown). The rind of a ripe melon is faded, not glossy. Mature melons feel heavy. The spot on the underside of fruit will be white or yellow and not greenish.



Poor pollination of cucumber

Misshapen fruits are 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.



Angular leaf spot

Angular lesions turn brown and drop out. Avoid getting foliage wet. Stay out of garden when wet and avoid wounding cucumber vines when harvesting. Copper sprays can prevent spread of bacteria.



Corn earworm

Tan moths lay eggs on ear tips. Larvae hatch and feed on kernels. Spray carbaryl or pyrethrin on tips when half of stalks show silks. Organic option is 20 parts mineral oil with 1 part *Bacillus thuringiensis*. Avoid late ripening corn.



Poor pollination of corn

Dry weather or silk-destroying insects can reduce pollination and fertilization of kernels. Plant corn in groups of short rows instead of long individual rows to concentrate pollen within plot.



Flea beetle on radish, greens

Tiny (1/8-inch) pests create shotholes in radish and leafy greens. Young seedlings are very sensitive. Consider spraying carbaryl, neem or pyrethrin if 10–30% defoliation.

Weather Almanac for August 20–30, 2016

Site	TEMPERATURE				RAINFALL				GROWING DEGREE DAYS ^{1,2}			
	August 20–30				August 20–30		2016		August 20–30		2016	
	Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
Bottineau	64	65	94	44	0.32	0.65	13.75	13.69	153	152	1744	1761
Bowman	65	66	96	41	0.17	0.31	10.26	11.88	159	167	1974	1816
Carrington	64	66	85	44	0.13	0.83	13.82	15.14	151	161	1868	1901
Crosby	65	64	97	42	0.03	0.52	11.81	11.74	158	144	1781	1628
Dickinson	67	66	98	44	0.08	0.51	9.25	12.94	170	160	2006	1792
Fargo	67	68	90	46	0.37	1.04	13.40	15.97	178	174	2187	2042
Grafton	64	65	85	44	0.13	1.15	22.84	15.32	153	150	1915	1768
Grand Forks	66	66	90	44	0.73	1.03	17.01	15.17	174	154	2001	1820
Hazen	65	68	94	40	0.00	0.56	13.77	13.03	159	175	1942	1973
Hillsboro	65	67	89	44	3.03	0.92	15.16	15.68	166	165	2019	1930
Jamestown	64	66	87	46	0.03	0.84	17.47	14.44	144	159	1905	1893
Langdon	63	63	86	44	0.01	0.87	19.09	14.82	146	130	1659	1515
Mandan	65	67	92	45	0.00	0.66	15.49	13.91	159	166	1988	1894
Minot	66	65	96	46	0.00	0.70	11.97	13.97	168	154	1873	1735
Mott	64	67	97	41	0.13	0.52	10.74	12.85	152	167	1894	1871
Rugby	65	65	90	46	0.00	0.69	12.71	15.09	158	148	1868	1755
Wahpeton	66	68	88	43	0.27	0.99	14.72	15.75	174	184	2106	2126
Watford City	68	65	99	46	0.30	0.46	7.95	11.57	172	156	2005	1813
Williston	67	69	99	46	0.00	0.55	8.91	11.18	169	185	1989	2044
Wishek	65	65	91	44	0.01	0.74	16.25	15.94	156	152	1849	1720

DAYLENGTH (Aug 31, McClusky, center of ND)³

Sunrise: 6:59 AM | Daylength: 13h 26m
 Sunset: 8:25 PM | Change since Aug 19: –38m

LONG-TERM OUTLOOKS⁴

Sep 5–9: Temp.: Normal; Precip.: Above Normal
 Sep 7–13: Temp.: Normal; Precip.: Above Normal

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.

^{2,3,4} Sources: North Dakota Agricultural Weather Network, www.sunrisesunset.com, and National Weather Service, respectively.

Credits

Santiestevan, C. 2012. Grow your own sweet potatoes. outlawgarden.com/2012/04/25/grow-your-own-sweet-potatoes/.

Stier, J. 2000. Lawn aeration and topdressing. Univ. of Wisconsin-Extension: Madison.

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