YARD & GARDEN REPORT

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How to Prune Tomatoes

Do you want your tomato vines to be healthy and productive all summer? It helps to prune them. Here's how to do it:

Know which type of vine you are growing. This makes a big difference. Varieties with *determinate* vines are compact and require *minimal pruning*. They grow no more than 4 feet tall and set a concentrated harvest of fruits. Popular determinate varieties include 'Celebrity', 'Mountain Fresh Plus', 'Roma', 'Sheyenne', and bush types such as 'Better Bush' and 'Patio'.

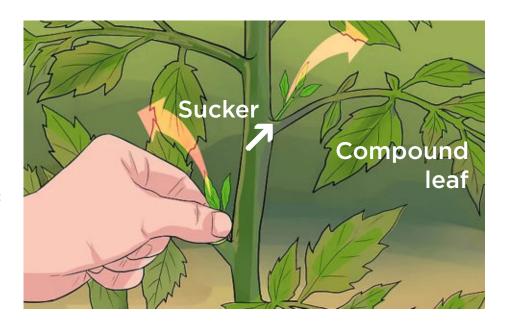
Varieties with indeterminate vines will grow robustly until frost. They require extensive pruning. Popular indeterminate varieties include 'Beefmaster', 'Beefsteak', 'Better Boy', 'Big Beef', 'Big Boy', 'Early Girl', 'Jet Star', 'Juliet', 'Large Red Cherry', 'Red Grape', 'San Marzano', 'SunSugar', 'Supersonic', 'Supersweet 100', 'Yellow Pear' and most heirlooms.

Remove the lower leaves. After you trellis your vines, remove any leaves that touch the soil. These leaves become shaded, attract diseases from soil debris, and reduce air circulation in the planting.

Find one good sucker.

Understand that each tomato leaf is a *compound* leaf, usually consisting of five to nine leaflets. *Suckers* form at the base of leaves (see drawing).

Find the first flower cluster. Below it is a sturdy sucker that can produce



lots of fruits. Let's call this Sucker One. We want to keep it.

Remove all suckers below Sucker One.

If you have a determinate variety, you are done pruning for the summer.

If you have an indeterminate variety, you need to remove the suckers above Sucker One as well. This will leave us with two stems: the main stem and Sucker One.

Undesired suckers are removed every week or so. You can be less aggressive at removing the higher suckers if you feel your vines are thin.

Prune suckers when they are young and dry. Prune suckers when they are about 3 inches long. Larger suckers will create larger wounds. Snap suckers off using your fingers or cut

them with a scissors or pruners. Prune suckers when vines are dry to prevent spreading diseases.

Trim back overgrown plants later this summer. Trim back vines if they are growing over your trellis.

Also, you can snip off the leaders of vines 30 days before frost is expected. This will channel the vine's energy into ripening fruits rather than producing more leaves.

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The Toughest Shrubs

Do you need to select a tough shrub for your yard? Don't go to your local garden center for inspiration. Go to the nearest *gas station*.

Gas stations are where plants go to die. Shrubs at gas stations are totally neglected. They are never watered and are surrounded by heat-trapping rock mulch. The air is polluted, and the soil is soaked with gas and salt. Shrubs at gas stations are never pruned—usually they die first.

Any shrub that can survive at a gas station can survive in your landscape. The next time you fill up your car's gas tank, take a moment to see if any of the plants nearby are surviving. You likely will see one of these rugged shrubs:

The toughest shrub may be Japanese barberry (Fig. 1). These durable plants come in a wide range of colors including purple, yellow and green. Barberry can withstand heat, drought and poor soil. Its stems have sharp spines that make it deer-proof. Some scientists classify barberry as an invasive "weed," but that is not always a bad quality. It's hardy to Zone 4.

A rugged shrub with beautiful flowers is potentilla (*Fig. 2*). Its bright golden flowers adorn the shrub all summer long. Native to our area, it thrives in our harsh climate.

Pink-flowering spireas (Fig. 3) are tough plants. Some spireas have green leaves while others have gold leaves. The most vigorous varieties have dark green leaves. These leaves are packed full of chlorophyll, which produces energy for plants. Keep in mind that gold-leaf spirea and other gold-leaf shrubs don't have as much chlorophyll and are naturally weaker. Spireas are hardy to Zone 4.

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Tough shrubs (shown right to left, top to bottom): Japanese barberry, potentilla, Japanese spirea, aronia, rugosa rose and juniper.

If you need a hardy shrub with purple leaves, a great choice is 'Diabolo' ninebark. It's tough as nails.

If you want a shrub with fruits, consider aronia (Fig. 4). It is pest-free, grows quickly, develops blueberry-like fruits (unfortunately they taste bitter), and has red fall color.

Everyone loves roses, but most roses require lots of maintenance. Consider the rugosa rose (*Fig. 5*). These plants tolerate heat, drought, salt and wind—hey, that makes them perfect for us in North Dakota! Some varieties bloom all summer and have

scarlet rose hips in winter. Popular selections include Blanc Double de Coubert (white), Therese Bugnet (pink), Lotty's Love (purple) and Fru Dagmar Hartopp (light pink).

If you need an evergreen, nothing is tougher than junipers (Fig. 6). These shrubs are hardy, tolerate drought, and survive in saline soils.

These "gas station plants" can survive the most brutal conditions your landscape can offer. But don't treat your landscape like a gas station. Show a bit of love to your plants and they'll reward you many times over.

Plant Health Care

Trees and Shrubs



Cankers on Poplar

Fungal pockets in trunks and branches stop the flow of water and nutrients. Plants die back. Cut out the cankers going at least 8 inches (more is better) into healthy wood. Infected trunks are often removed.



Wooly Oak Gall

Fuzzy balls appear, especially on leaf midribs. Inside is a developing wasp. The gall will drop off and an adult wasp will emerge. These galls are virtually harmless and no treatments are needed.



Spruce Sawfly

Yellowheaded spruce sawfly defoliates spruce, beginning with young needles. Insecticidal soap kills young larvae. Carbaryl, acephate or cyfluthrin is recommended for large infestations.



Aphids

Pry open the curled leaves to reveal the pests. Aphid excrement is sticky and glistens; it may attract ants. Aphids cause little damage. Leave them alone or spray them with a jet stream of water. Acephate may be justified for young trees.



Bumps on Tree Leaves

Mites or psyllids pierce leaves, creating bumps. Silver maple, hackberry and linden are often affected. Damage is mostly aesthetic, and pesticides are not required.



Dutch Elm Disease

A major branch shows yellowing and wilts. Take a one-inch-diameter sample and look for brown streaking in sapwood and beneath bark. Prompt removal of the tree is recommended.



Rose Mosaic Virus

Unusual bands, splotches or rings appear. The virus infects the entire plant and cannot be cured. Remove the plant once it loses vigor. This virus does not spread to other roses or other plants.



Petiole Galls on Poplar

Bumps appear on petioles, and the leaves may drop. Aphids develop inside galls and later emerge to feed on mustards. Defoliation is minor. Rake leaves. No pesticides are needed.

Plant Health Care

Fruits and Vegetables



Herbicide Injury in Gardens

Exposure to pesticide drift or pesticidecontaminated manure/clippings may cause curling of foliage. Potato and tomato vines are very sensitive. Plants will be stunted and yields may be poor.



Colorado Potato Beetle

Scout for orange eggs now on leaf undersides. Squish eggs; remove larvae (shown inset). Sprays of spinosad, neem, cyflurthrin and esfenvalerate are effective, especially before adults mature.



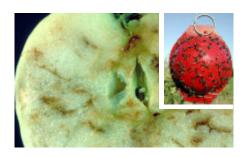
Cabbage Moths

White moths are beginning to lay eggs on cabbage and broccoli. Eggs hatch into larvae that create tunnels. Spray with *Bacillus thuringiensis* while caterpillars are small. Use carbaryl or pyrethroids on mature caterpillars.



Plum Spindle Gall

Eriophyid mites fed on the leaves in spring, causing a reaction that led to unusual columns forming. Fruits are edible. Damage is cosmetic and no pesticides are needed.



Apple Maggot

Flies are laying eggs now. Apple maggot traps can be hung to monitor for pests. If flies are found, spray at 2–3 week intervals using malathion, carbaryl or a pyrethroid.



Fire Blight on Raspberry

Cane tips appear scorched and will curl downwards into a shepherd's crook (see arrow). It is difficult to save infected plantings. Prune canes down at the base. Disinfect pruners between cuts using a solution of 1 part bleach, 9 parts water.



Chokecherry Leaf Holes

Infected spots fall out of chokecherry and plum leaves, creating shotholes. Rake leaf litter. Keep foliage dry. Inspect branches for cankers; remove if found.



Herbicide Injury on Apple

Leaves become elongated, curled or cupped. Most trees survive. In the future, use herbicides only when needed. Spray when wind is minimal and avoid hot days.

Weather Almanac for July 1-July 7, 2019

	TEMPERATURE ¹				RAINFALL ^{1,4}			GROWING DEGREE DAYS ^{1,5}				
	July 1–7			July 1-7		2019		July 1–7		2019		
Site	Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
Bottineau	63	67	80	48	0.49	0.77	7.02	7.92	78	102	732	766
Bowman	65	68	85	51	0.49	0.54	6.85	7.32	90	107	644	750
Carrington	68	69	83	51	0.53	0.88	5.91	8.58	108	114	789	862
Crosby	63	65	85	48	0.24	0.76	5.04	6.69	76	95	717	718
Dickinson	66	67	85	49	0.12	0.68	6.06	7.94	91	103	706	769
Fargo	71	70	87	54	0.15	0.78	7.12	8.85	121	123	881	937
Grafton	68	67	85	47	0.00	0.79	3.78	8.24	110	106	810	821
Grand Forks	69	68	88	51	0.95	0.83	6.55	8.00	109	108	807	838
Hazen	67	69	87	48	0.18	0.64	5.26	8.06	100	113	755	886
Hillsboro	70	69	88	51	0.04	0.83	5.61	8.54	115	115	846	875
Jamestown	68	69	87	53	1.25	0.87	7.68	8.15	107	115	761	847
Langdon	64	65	80	48	0.15	0.85	4.50	8.44	82	90	679	676
Mandan	68	69	85	53	0.61	0.78	7.77	7.90	105	115	773	824
Minot	65	67	84	48	0.05	0.69	4.86	8.01	86	105	753	763
Mott	66	69	85	50	1.06	0.65	8.12	7.73	92	112	706	806
Rugby	66	67	82	51	0.14	0.83	5.81	8.44	91	103	747	808
Wahpeton	71	71	87	54	1.87	0.85	8.15	9.05	120	126	875	987
Watford City	65	67	89	48	0.32	0.73	4.08	6.78	83	105	741	786
Williston	65	70	88	48	0.09	0.68	5.96	6.46	87	119	760	906
Wishek	67	68	86	55	0.33	0.71	7.90	7.41	102	106	726	751

DAYLENGTH (July 8, McClusky, center of ND)²

Sunrise: 5:53AM Daylength: 15h 47m Sunset: 9:40PM Change since July 1: -7m

LONG-TERM OUTLOOKS³

July 13–17: Temp.: Above Normal; Precip.: Above Normal July 15–21: Temp.: Above Normal; Precip.: Normal

Credits

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EXTENSION

^{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.