

CROP PROFILE

ELDERBERRY

Sambucas
Member of *adoxaceae* family



History

Elderberry originated in southern Scandinavia, from Greece to Portugal, Morocco, and Algeria. It is native to Wisconsin woodlands, fence rows, and fields.

Climate Needs

Elderberries need a cool moist location. It can grow in partially shaded areas with good air circulation to reduce leaf and fruit diseases.

Risk

Elderberry is a fairly low-maintenance plant however you must make sure to prune elderberry plants.

Elderberry Description

Elderberry is a large, deciduous perennial shrub that can grow up to 30ft tall. Speckled with small, creamy white flowers in the spring and 5 to 7 leaflets. The stems are pithy and dull green with bulged joints and distinguished lenticels on the older stems. The roots, stems, leaves and unripe fruit carry a poisonous alkaloid and cyanogenic glycoside which is moderately poisonous. Elderberries are not self-pollinating and should be planted near each other to provide for cross-pollination. Prune when plants are dormant, usually in early spring just before growth begins. Prune out weak or broken branches, leaving 6 to 8 lively stems.

Soil

Moist and soil high in organic matter will be best; however, elderberry will tolerate relatively dry soil due to their shallow roots. Do not plant where water stands for more than a day.

Seeding

Spring planting is preferred for elderberries. Set dormant plants as soon as they are received from the nursery, or transplant them directly from the propagation bed. Before planting, remove damaged or broken roots and stems, and cut back the top portions 8 to 10 inches. Plant with the lowest branch at or just below the soil line. Water thoroughly after planting to settle the soil around the roots, and water weekly thereafter if rainfall is insufficient.

CROP PROFILE

Fertility

Use of well-rotted manure or compost is beneficial. Young plants should receive 1 to 2 tbsp of a high-nitrogen fertilizer annually in the spring. Older plants should receive 3 to 4 tbsp of high-nitrogen fertilizer in the spring. If the bush is vigorous, producing a lot of new growth, reduce the nitrogen by half or eliminate it altogether. If growth is moderate, but the plants still appear healthy, apply the recommended amount. If a few new stems are produced and growth appears poor, increase nitrogen application by half.

Weed Control

Eliminate quackgrass and other perennial weeds by frequent cultivations before planting the bushes. After planting, frequent shallow cultivations will keep weeds out of the planting. Mulch will aid in suppressing weeds as well as retaining soil moisture. Apply mulches 3 to 4 inches deep around the plants. Grass can be planted in the aisles between the rows, this will let you harvest fruit following rains.

Pest & Disease Management

If the mulch depth is too deep, you will create a habitat for rodents. Pests to look out for include aphids, cecropia moths, and elder shoot borer. Diseases that can hurt the elderberry plant include tomato ringspot virus, fungal cankers, and powdery mildew. Birds are another pest to look out for, they will eat every berry they can get.

Harvest

Berries are ripe and ready to harvest early to mid-September when they are dark in color. The clusters also look heavy and hang low on the branches. Harvesting must be carried out by hand, as there are no mechanical harvesters currently available.

Cleaning & Storage

The best way to store elderberries is in the refrigerator. Place whole clusters or the plucked, stemless berries unwashed in a container with a loose cover. It is advised to eat them within 1 to 2 days. Elderberries can be frozen if wanting to be kept long-term.

Highlights

Studies have shown the berries on the elderberry plant to have medicinal properties. The berries have antiviral properties against influenza, coronavirus, and much much more. Uncooked berries do contain cyanogenic glycosides, which can release cyanide in certain circumstances.



CROP PROFILE

Rating any crop's production opportunity or risk is subjective and depends on the region where the crop is to be raised. Genetic advancement for pathogen tolerance and adverse weather condition has been more significant for popular, high seed sales crops such as corn and soybeans. The table below lists some of the issues of producing specific crops and helps guide your process of selecting your cropping choice.

Average rating: 3.85

Issue	1	2	3	4	5
Seed availability					X
Scouting requirements					X
Drought tolerance				X	
Waterlogged soil tolerance			X		
Disease pressure			X		
Wildlife concerns			X		
Yield swings				X	
Harvest ability				X	
Field loss					X
Market demand				X	
Soil regeneration			X		
Residue value			X		
Storability					X
Benefit for following crop			X		

1- very low 2- low 3- average 4- moderately high 5- very high

Seed availability – Price, lead time, and required lot size are considerations for these issues

Scouting requirements – What frequency does someone need to look at the crop?

Drought tolerance – Rainfall patterns are requiring crops go longer between rainfall events.

Waterlogged soil tolerance – Rainfall events tend to produce higher volumes than historical averages.

Disease pressure – Plant stress has increased with the rise of daytime temperatures

Wildlife concerns – Deer, rabbits, voles, resident geese, and others can destroy fragile crops.

Yield swings – How predictable will the income be when this crop goes to market?

Harvest ability – Do we need plans B & C if adverse conditions affect the harvest?

Field loss – How much will be left in the field and can we monetize field loss?

Market demand – Does this crop have an elastic delivery window and are there timing penalties?

Profitability – Is there potential for higher margins needed for a shrinking land base?

Soil regeneration – Does this crop support the next crop?

Residue value – What remains after the target crop? Can we monetize the residue?

Storability – How long can we hold this crop? Will quality be challenging to maintain?