

## Diversify with Woody Crops

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Cut branch crops are shrubs from which branches are harvested for their unique shape, color, flowers or fruit and used as decorative items in floral arrangements and in the craft market. The three I will specifically talk about today are red-twigged dogwood, winterberry, and pussy willows. I have been growing and evaluating selected varieties of these shrubs over the past six years and gathering information about their market potential as cut branch crops.

Here in New England, nature provides some of the best twig colors for fall décor. Red-twigged and yellow-twigged dogwoods, for example, develop their rich colors as the weather turns cold and the leaves drop in the fall. They are marketable as branches for use in fall and holiday floral arrangements and other decorations. Since they are dormant when cut, they need no special handling and don't need to be kept in water and can be used in dried as well as fresh arrangements.

The shrub dogwoods (*Cornus sericea* and *C. alba*) are adaptable to most of the soils in our region and are hardy to zone 3. They are truly low-maintenance crops. Other than mowing between the rows in the summer, they need no virtually no attention during the growing season when you're probably too busy anyhow. Foliar diseases and insects are of little consequence since the marketable product does not include the leaves. The shrubs are pruned and harvested simultaneously during the fall or winter, when farmers usually have available time or labor. They can provide income during a time of year when very few other farm enterprises are.

Because they are harvested and marketed during the winter, it's important to have a site accessible during snow or mud season. However, you don't need good agricultural land to grow them; in fact, most are native to and prefer fairly wet soils that may be hard to use for other purposes. Yet dogwoods and willows also grow quite well on sandier, well-drained soils, although you may need to provide supplemental water during the first year while plants establish themselves. The shrubs will be most productive in full sun areas, but can be grown in partial shade along the woodland's edge. Spacing plants 8-10' apart in mulched rows, with 10-12' between rows allows easy accessibility for harvest and mowing.

It is only the new wood (current season's growth) of dogwood that is brightly colored. Older stems develop grey-brown bark and lose their smooth attractive appearance. Once the plants are established, 1 ½ to 2 ½ years after planting, you should cut all the large stems back to within 6-12 inches of the ground when harvesting. This hard pruning each year will encourage many vigorous new shoots to come up, which will be the next year's marketable crop. The dogwoods also send up suckers and will fill in the row between plants.

There is a common canker-causing disease on shrub dogwoods and it is managed primarily by pruning, so be vigilant about that when harvesting. Go back through after harvesting and remove any remaining wood that has visible cankers.

Straight, unblemished and unbranched stems, 3-feet or longer, are most desirable for the floral market. Most stems are sold in bunches of ten. Some people mix stem lengths together in the bunches, but for most wholesale markets you would need to grade by length and the price received will change accordingly. You'll have a lot of small branches or "tips" the first time you harvest, but each year both the count and the length will increase, up to a point.

I planted my shrub dogwood trials in 2002 and have gathered yield data each year since the first harvest in early spring of 2004. I have five selected varieties in my trials: 'Baileyi', 'Ruby', 'Siberica' are red-twiggled, 'Bud's Yellow' is yellow, and 'Winter Flame' is a nice mixture of shades of pink, orange and red.

The reds are the most popular, being marketed during late fall/early winter for seasonal arrangements, often mixed with evergreens in planter boxes. The yellow and orange colors are less popular, but wouldn't they be great for early spring, maybe Easter?

'Baileyi' has consistently been the best yielding variety and has the best red color, and this is the one I'd recommend to plant. After five years, I am getting a consistent average of 140 marketable stems per plant, and 75% of them are over 3' in length. 'Siberica' looks very similar to 'Baileyi' but has had lower yields. 'Ruby' is lighter in color and even lower yielding. The other types can be added for novelty colors and specialized markets, but be conservative in planting these. I have observed more winter dieback and deer browse on the 'Winter Flame', which is a slower grower and more compact plant.

You can expect an average price of \$.35 per stem if selling directly to florists, grocery stores or craft markets. Wholesale prices, of course, are lower. With proper market development, \$50 per plant per year from red-twig dogwood would be an achievable gross income. Your cost of purchasing good nursery stock for planting may be \$12-18 per plant, so your payback period will be at least 3 years, depending on the variety. Of course, you also have other costs of land preparation, irrigation, mulch, mowing, etc. that you should account for when calculating what your net income might be.

Like dogwood, winterberry holly (*Ilex verticillata*) is primarily a late fall holiday item – and it times itself perfectly for this. The berries ripen and the leaves drop in late fall, exposing bright red, orange or even gold berries. I haven't been as successful with winterberry, primarily due deer browse of the young plants, and the fact that it is by nature a slower growing plant. I'm still working on it, but can't guarantee that production of winterberry will be a money-maker.

Berries set on the current year's growth. The stems are mostly 12-24" in length and because they are branchy, it's hard to bundle them, so selling them in trays or loose bunches is recommended. I don't prune them as aggressively as the dogwoods, trying to leave a good plant structure from which new growth will occur.

In my trial I have five varieties selected for dense berry set, excellent color, and long berry retention. 'Winter Red' is the top variety for me, with the densest berries and the most harvestable branches per plant. 'Berry Heavy' also performed well, and

‘Sparkleberry’, which has much smaller, more delicate berries. Two Dutch varieties, ‘Cacapon’ and ‘Oosterwijk’, have fared relatively poorly.

Keep in mind that all hollies have separate male and female plants, so you should plant a compatible male pollinator for each variety of female you have. A ratio of 10 female:1 male plant should be sufficient. The most common male varieties are ‘Southern Gentleman’ and ‘Jim Dandy’. Use the one that flowers at the same time as your female variety.

There are several species of willows grown for floral and craft use (such as basketry). Curly willow (*Salix matsudana*) is easy to grow in zone 5 and parts of zone 4. The contorted branches are of high value, sometimes sold green and sometimes dried. Another unique, high value branch is that of Japanese fantail willow (*Salix sachalinensis* ‘Sekka’). But in my opinion, the best cut branch crop to start with is pussy willow. People are desperate for spring at the time the fuzzy catkins come out in early to late March. Demand is high for good quality cultivated pussy willows.

Much of what is currently marketed is collected from natural stands of the native pussy willow, *Salix discolor*. They have poor quality wimpy stems with very few catkins on them.

Plant giant pussy willow (*S. chaenomeloides*) and/or French pussy willow (*S. caprea*) for your cultivated crops. The latter is a consistent producer with straight branches and normal size catkins with a rose tinge to them; the giant pussy willow has catkins an inch long, gray and fuzzy. Both make excellent quality cut stems and are highly marketable at \$.35 to \$.70 per stem.

Pussy willows are grown similarly to red-twigged dogwoods, liking moist soils and full sun but not requiring them. They are cut when the catkins start to expand in spring, or can be cut earlier and forced in buckets of water in a warm room. When catkins are at the desired size and stage, let them dry to prevent them from developing further and releasing yellow pollen. Like dogwoods, the plants should be cut back heavily each year to encourage new vigorous branches to come up in spring.

In summary, woody cut branch crops can be easily grown and the market potential is very good. Start with a small number of plants and develop local markets for your product at a fair price. Growers who plant large numbers will find themselves at the mercy of wholesale brokers and will not find these crops as profitable.

The crops I have discussed are adaptable to our climates and soils, require little maintenance once established, provide winter work and income, and don’t require special handling or equipment. A cooler for keeping product fresh would be recommended if storing the cut branches for several days or longer.

The main challenges are deer, especially when plants are young, and canker diseases. Temporary deer fencing could prove to be a good investment. The diseases, once in the base of the plants, will eventually cause it to decline, so I’m considering both dogwoods and pussy willows to be of fairly short life-span; my guess is 10-20 years. New plantings should be at a distance from infected older plantings. Keeping weeds under control during the first critical growing season is also important to success; supplemental irrigation may also be needed during that time.

For more information, or to arrange to see my trials, please contact me.