



Beware of Toxic Wild Berries

by David Trinklein

Late-summer into early fall is a period when the fruits of many plants in the wild begin to mature. Unfortunately, it also is a period when plant poisonings tend to be more prevalent. Children are the most common victims because of their tendency to explore their world through the sense of taste, as well as through sight. Therefore, it is important to warn children not to pick or eat fruits or berries from plants they do not know. Children considered too young to understand should be kept under close supervision and away from any plant that might present a potential danger to them.

Most plants grown in the home landscape present little or no danger from berry poisoning. However, there are a number of wild plants that should be avoided. On rare occasions, these plants accidentally find their way into the home landscape via the activity of birds or other animals that disseminate their seeds.

Even though most berries are not highly poisonous, children who ingest them may become ill. The latter depends on the type of berry and the quantity consumed. Most toxic compounds are rated in toxicity according to the amount that must be ingested per unit of body weight to produce an effect (i.e. mg active ingredient/kg body weight). Since children weigh less than adults it takes less of a toxic compound to produce visible symptoms of poisonings in children than in adults.

One of the most easily misidentified toxic berries is the fruit of a wild vine called moonseed (*Menispermum canadense*). The common name of the plant is derived from the fact its seeds are shaped like a crescent moon. The leaves of moonseed are shaped somewhat like those of wild grape. Additionally, the plant produces small bunches of bluish-black berries in grape-like clusters. Fortunately, although moonseed berries resemble wild grapes in appearance, they have a taste which has been described as “rank”. Another



identifying characteristic is that moonseed produces one single, large seed per berry, whereas wild grape produces several small seeds ovoid in shape.

A common wild plant that produces berries that are quite toxic is black nightshade (*Solanum nigrum*). This annual often is found in areas where there is little competition from other plants, since it needs bright light to flourish. The plant produces small white flowers that are shaped like those of tomato, to which it is related. The leaves of black nightshade are somewhat triangular-to-ovate in shape and coarsely toothed with wavy margins. In late summer, black nightshade produces small clusters of dark purple berries in its leaf axils that contain a glycoalkaloid toxin known as solanine. The toxin is most concentrated in unripe, green berries of the plant which, reportedly, have caused fatalities. Ripe berries are less toxic but still should be avoided.

Horse nettle (*Solanum carolinense*) is not a true nettle but rather is related to members of the nightshade family. Also known as bull nettle, it has irregularly-lobed, coarsely-toothed leaves covered with fine hair, and a stem that bears spines. Very common along roadsides and in pastures, horse nettle bears small fruits that resemble miniature tomatoes that turn golden

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yellow when fully mature. Although only modestly toxic, all parts of the plant should be avoided and children should be warned against picking its colorful berries.

Pokeweed (*Phytolacca Americana*) is another plant that produces tempting purple berries in late summer and fall. Although there are those who use this plant in early spring as wild greens, this practice cannot be recommended because of the plant's toxicity. Reportedly, adults have died from eating improperly prepared poke greens. The toxicity of pokeweed increases in intensity as the plant matures, with the stem and roots being the most toxic part of the plant. Although the colorful purple berries contain less toxin than the remainder of the plant, they still are considered poisonous and should be avoided. Pokeweed is often spread by birds who favor the berries as a food source but are unaffected by its toxic component. A few plants have seeds that are toxic

rather than berries. Several members of the genus *Aesculus* fall into this category. Ohio buckeye (*Aesculus glabra*) is a good example. It is a small tree of the woods and landscape that produces large shiny, dark brown seeds. Although buckeye seeds would be difficult to eat because of their hard seed coat, they are considered poisonous when eaten raw by either people or animals and should be avoided.

Finally, castor bean (*Ricinus communis*) is a large, herbaceous plant with attractive, palmately-lobed leaves. It has considerable horticulture merit as a landscape plant when used for shade or a screen, and several named cultivars have been selected from the species. Castor bean bears shiny, bean-like seeds that contain ricin, one of the most toxic substances found in nature. It has been suggested that one seed contains enough ricin to kill an average adult. Castor bean should not be planted in landscapes frequented by small

children. For other areas, removing the blooms as they develop to keep seeds from forming would be a wise precautionary measure.

The rationale behind consuming plants from the wild has always escaped me, since we have such an abundance of cultivated food to eat. However, for those who enjoy "living off the land", a positive identification of any wild plant is very important before any seeds, berries or fruits are consumed. The adage: "When it doubt, throw it out" lends itself well to the prevention of accidental poisonings. Our ancestors spend thousands of years selecting fruits, berries and others food sources from plants largely through trial and error. Sticking with the "tried-and-proven" will avoid accidental poisonings and the human suffering that comes with it.

Disclaimer: The preceding article was written for educational purposes only. Please contact a physician or the nationwide poison information center (800-222-1222) if you suspect someone has eaten a poisonous plant.

Halysidota tessellaris Caterpillars: Do Not Disturb!

Full-grown caterpillars of the pale tussock moth are on the move during the fall, chewing leaves of plant hosts, including grapevines and hickory, oak, walnut, willow, poplar, and hackberry trees. Plant damage from this type of caterpillar feeding is usually minor during September and October. *Halysidota tessellaris* caterpillars are about one and a half inches long and their bodies are covered with whitish-gray setae (hairs). Longer tufts of white and black hairs (pencil hairs) are also present at both ends of the body (Figure 1.). Although it is tempting to pick up these caterpillars, it's best to steer clear of them.

If you should touch a *Halysidota tessellaris* caterpillar, do not rub your eyes as this can irritate them. For some people, contact with the caterpillar (especially the long pencil hairs) causes a stinging sensation

or an itchy skin rash. Pencil hairs are actually hollow, which allows transport of the stinging chemical to the victim. For those unlucky soles who contact a *Halysidota tessellaris* caterpillar, wash the affected skin with soap, apply some ice, and then cover the area with calamine lotion. In many cases, this treatment will ease the sting. However, for more sensitive people, a visit to the doctor may be needed if severe swelling or nausea occurs.

Halysidota tessellaris caterpillars are usually not found in groups in the fall. They are often visible on the upper side of leaves and are not consumed by birds. During their final stage as a caterpillar, they weave their hair into the outer layer of their cocoon for protection against predators. Adults of this caterpillar, known as the banded tussock moth,



can be identified by their horizontal tan-colored bands on the forewings, whereas the hindwings are smaller and unbanded (see <http://bugguide.net/node/view/1018387>). Adults are attracted to decaying plants, such as asters and ragworts that contain pyrrolizidine alkaloids (naturally-occurring chemical compounds). After feeding on these plants, moths regurgitate and ingest the fluids for chemical protection from predators.

SEPTEMBER GARDENING CALENDAR

Category	Week				Activity
	1	2	3	4	
Ornamentals	x	x	x	x	Continue planting evergreens now.
	x	x	x		Cuttings of annuals can be taken now to provide vigorous plants for overwintering.
	x	x	x		Herbs such as parsley, rosemary, chives, thyme and marjoram can be dug from the garden and placed in pots now for growing indoors this winter.
		x	x	x	Except tulips, spring bulbs may be planted as soon as they are available. Tulips should be kept in a cool, dark place and planted in late October.
		x	x		Begin readying houseplants for winter indoors. Prune back rampant growth and protruding roots. Check for pests and treat if necessary. Houseplants should be brought indoors at least one month before the heat is normally turned on.
			x	x	Perennials, especially spring bloomers, can be divided now. Enrich the soil with peat moss or compost before replanting.
			x	x	Divide peonies now. Replant in a sunny site and avoid planting deeply.
			x	x	Lift gladioli when their leaves yellow. Cure in an airy place until dry before husking.
			x		Poinsettias can be forced into bloom for Christmas if they are moved indoors now to a sunny windowsill. Each night, they must be kept in a cool, dark place where there is no light for 14 hours. This must continue until proper color is achieved in 6-10 weeks.
Lawns	x	x	x	x	Cool-season lawns are best fertilized in fall. Make up to 3 applications between now and December. Do not exceed rates recommended by fertilizer manufacturer.
	x	x	x	x	If soils become dry, established lawns should be watered thoroughly to a depth of 4-6 inches.
	x	x	x	x	Begin fall seeding or sodding of cool-season grasses. Seedbeds should be raked, dethatched or core-aerified, fertilized and seeded. Keep newly planted lawn areas moist, but not wet.
		x	x	x	Lawns may be topdressed with compost or milorganite now. This is best done after aerifying.
			x	x	It is not uncommon to see puffballs in lawn areas at this time.
			x	x	Newly seeded lawns should not be cut until they are at least 2 or 3 inches tall.
Vegetables	x	x			Egyptian (top-setting) onions can be divided and replanted now.
	x	x			Sowing seeds of radish, lettuce, spinach and other greens in a cold frame will prolong fall harvests.

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SEPTEMBER GARDENING CALENDAR

Category	Week				Activity
	1	2	3	4	
		x	x	x	Keep broccoli picked regularly to encourage additional production of side shoots.
		x	x		Pinch out the top of Brussels sprout plants to plump out the developing sprouts.
		x	x		Harvest herbs now to freeze or dry for winter use.
		x	x		Tie leaves around cauliflower heads when they are about the size of a golf ball.
			x	x	Pinch off any young tomatoes that are too small to ripen. This will channel energy into ripening the remaining full-size fruits.
				x	Sow spinach now to overwinter under mulch for spring harvest.
Fruits	x				Pick pears before they are fully mature. Store in a cool, dark basement to ripen.
			x	x	Bury or discard any spoiled fallen fruits.
				x	Paw paws ripen in the woods now.
				x	Check all along peach tree trunks to just below soil line for gummy masses caused by borers. Probe holes with thin wire to puncture borers.
Miscellaneous	x	x	x	x	Autumn is a good time to add manure, compost or leaf mold to garden soils for increasing organic matter content.
	x	x			Monitor plants for spider mite activity. Reduce their numbers by hosing off with a forceful spray of water.
		x	x	x	Seasonal loss of inner needles on conifers is normal at this time. It may be especially noticeable on pines.

Gardening Calendar supplied by the staff of the William T. Kemper Center for Home Gardening located at the Missouri Botanical Garden in St. Louis, Missouri. (www.GardeningHelp.org)