

Weed of Interest: Wild Parsnip (*Pastinaca sativa*)

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Wild Parsnip is a member of the Apiaceae (Umbelliferae) family and is closely related to the cultivated vegetable, parsnip. Wild parsnip is native to Europe and recorded in North America as being present as early as 1620. It is thought the cultivated parsnip was imported from Europe and escaped cultivation and soon after reverted to the wild type. Wild parsnip, like several other members of this plant family, produce a group of compounds known as furanocoumarins. These compounds if ingested or rubbed on exposed skin cause a reaction in humans and in livestock known as phytodermatitis. The compounds are most reactive in the presence of sunlight. If exposure occurs in reduced light or semi-darkness, there is little or no reaction. These phytochemicals, which are produced in the greatest amount during the flowering season, are thought to be used by the plant to reduce both insect and fungal attacks. Parsnip (wild and cultivated) is a biennial plant. During the first season after seed germination, the plant grows as a rosette of several compound leaves lying close to the ground. Most of these leaves will die back during the winter and regrow the following spring. Following winter vernalization, the plant will initiate flowers and produce seed, which ripens during the late summer and early fall. Interestingly, if the rosettes do not grow large enough during the first season, the plant will continue to grow vegetatively until the nec-

essary size is reached. At that point the rosette will be winter vernalized and will flower the next spring. The flowers are characteristically yellow and are borne in a flatten inflorescence typical of most members of the carrot family. The large flat seeds will drop from the plant in the fall and winter and be wind dispersed to new sites. The main distinguishing feature of cultivated parsnip is that the leaves are coarsely hairy, while the wild species is smooth throughout. Wild parsnip is the only weedy member of the family that produces yellow rather than white flowers. There is disagreement among the experts about whether the root of the wild plant is edible, so caution should prevail if it is encountered. In recent years, wild parsnip has become an increasingly troublesome weed along roadsides and embankments in upstate New York. This problem is partially due to the mowing schedule that is practiced along many roadsides. Mowing can be an effective management tool for this weed, but the timing has to be precise. If the flower stalk is mowed as the flowers are beginning to form in early summer, then the plant will die and not regenerate a new stalk. However, if the mowing is done later in the summer when seeds are beginning to ripen, then it will not prevent many of those young seeds from continuing to ripen and later germinate. On eastern Long Island, wild parsnip is not a common weed, but in recent years, it has



*Wild parsnip rosette (first year's growth).
Photo by A. F. Senesac*



*A solid stand of wild parsnip growing along a
highway in upstate NY. Photo by A. F. Senesac*

been spotted growing near shorelines. This suggests the source of infestation may be from seeds that float from other infestation sites. On Shelter Island there was an outbreak infestation the season after Superstorm Sandy. The infestation was in an area that was flooded and most likely the seeds came from New Jersey. Hand removal is a practical control option for this weed if a few plants are encountered. Disposable gloves should be worn when cutting or digging it since the sap can cause dermatitis. The rash and inflammation isn't instantaneous though. It takes up to 24 hours for symptoms to start to appear. ●



Wild parsnip leaf. Photo by A. F. Senesac



Wild parsnip seedhead. Photo by A. F. Senesac