

Hickory (*Carya sp.*)

By KW Mudge

Hickory has been called the king of nuts. Although overall, black walnut may be the more valuable in a forest farming operation from the standpoint of its combined value as a nut crop and as a timber crop, the flavor hickory nuts is uniquely satisfying and preferred by many over that of the black walnut. Many have childhood memories of cracking wild shagbark hickory nuts to get at the delicious kernels, but considering how difficult they are to crack and how little and fragmented the nut meat of a typical wild nut, it's hard to imagine making money growing (wild) shagbark hickories. Fortunately a number of improved cultivars of shagbark and other hickories have been selected over the years that have larger nuts, thinner shells, and more easily extracted nuts. Despite this, with the exception of the pecan (*Carya illinoensis*) there is no large or even modest scale commercial production of edible hickories. Like a number of other forest farming crops, if you are going to grow hickories in the woods, you're going to have to develop your own marketing channels such as farmers markets, specialty shops, etc.

There are four species of hickories (genus *Carya*) that are native to the North East: shagbark hickory (*C. ovata*), mockernut (*C. tomentosa*), pignut (*C. glabra*), and bitternut (*C. cordiformis*). Of these, only shagbark hickory produces edible nuts. Shellbark hickory (*C. laciniosa*) and northern Pecans (*C. illinoensis*) are two other non native hickory species can be grown for their nuts reliably in zone 6 or warmer (most of PA, NYC/Hudson region, and western MA).

Shagbark hickory is found on relatively dry, sloping upland sites, whereas shellbark hickory is found on deep, fertile, moist bottom-land soils. Hickories, like other temperate nut tree species require at least 2250 growing degree days (GDD), but our experience in Ithaca, NY (zone 5) is that most hickory selections which are from the Midwest and south of NY State fail to ripen except in years when summer warmth and length of growing season (i.e. Growing Degree Days) is slightly longer than average.

Aside from pecan for which many cultivars have been selected, relatively few cultivars have been selected of shagbark and shellbark hickory and several interspecies hybrids. Some of these include thought to be better suited for northern growing conditions include:

Shagbark – CES 26, Fox, Davis, Wilcox, Porter, Neilson,

Shellbark - Fayette, Henry, CES 24

hybrids – Weschke (*C. laneyi* = *C. cordiformis* x *C. ovata*), Weiker (*C. dunbarii* = *C. ovata* x *C. laciniosa*.)

A more complete list of cultivars can be found in Grauke, 2003 (*A Guide to Nut Tree Culture In North America*, edited by DW Fulbright, Northern Nut Growers Association, pp 117-165. Two commercial sources of grafted hickory cultivars or scion wood from New York are the John Gordon Nursery (1385 Campbell Blvd, Amherst, NY 14228-1403; 716-691-9371 <http://www.geocities.com/nuttreegordon/0Kgordon.htm>), and Grimo

Nut Nursery (979 Lakeshore Rd., R.R. 3, Niagara-on-the-Lake, Ontario, Canada L0S 1J0; 905-935-6887, <http://www.grimonut.com/>).

In general hickories are slow growing trees with deep taproots making them difficult to transplant. Little information on cultural requirements for hickory is available other than the site preferences for naturally occurring trees.

Planting of clonal (grafted) trees of selected cultivars is recommended if your goal is to produce saleable-quality nuts. Seed or seedlings should only be propagated as rootstocks for grafting. If you prefer to do your own grafting onto wild hickory seedlings growing in your woodlot, grafting stock and scion of the same species is recommended because delayed incompatibilities have been observed between shagbark and pignut hickory, and possibly other combinations, although grafting shagbark onto shellbark appears to be a good combination. Top grafting at about waist height onto wild seedling trees up to several inches in diameter is recommended to take advantage of the well established rootsystem of the seedling. Inlay bark grafting for larger understocks, or 3 flap (banana) grafting for stocks one inch or less in diameter, is recommended over cleft grafting. The Cornell Cooperative Extension publication *Nut Growing in New York State*, by LH MacDaniels (1981) [[link to our pdf](#)] has clear, well illustrated instructions for each of these and other grafting methods.