

Corylus americana ‘Little Filly’¹

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Abstract

A new compact cultivar of *Corylus americana* named ‘Little Filly’ was selected among a group of container grown seedlings. ‘Little Filly’ has smaller plant size, leaf size, and internode length than the species. In 6 years, ‘Little Filly’ reached 60 cm (23 in) tall and 70 cm (28 in) wide. Mature leaves are 5 to 7 cm (2 to 3 in) long and 2 to 5 cm ($\frac{3}{4}$ to 2 in) wide. Internode length is 1 to 2 cm ($\frac{1}{2}$ to $\frac{3}{4}$ in).

Index words: American filbert, American hazelnut, compact growth, native plant.

Species used in this study: American filbert *Corylus americana* Marshall ‘Little Filly’; also referred to as American hazelnut, *Corylus americana* Walter.

Significance to the Nursery Industry

Nursery producers are interested in improved selections of native species that can fill important landscape roles. *Corylus americana* ‘Little Filly’ is a compact, deciduous shrub with a dense, rounded habit. This selection is suitable for smaller residential landscapes and commercial landscapes due to its compact nature and ability to grow in dry, well-drained soils once established. While the plant performs well in full sun, ‘Little Filly’ may be most useful for infertile, shaded locations where landscaping options are limited.

Introduction

Native plants can serve as alternatives to cultivated nursery species that are invasive in landscapes. Recent evidence has shown that natives can be utilized in dry, full sun, and infertile landscape conditions where invasive ornamental species have typically been used (4). To capitalize on the growing native market, nursery producers are expanding their product lines by adding new native species. Nursery producers are particularly interested in identifying improved selections of native species that can better fill important landscape roles than unimproved genotypes. *Corylus americana* Marshall (American filbert) is a relatively unused eastern North American native shrub that has landscape potential because of its suitability for challenging landscape sites (4). A plant of *C. americana* exhibiting compact habit, shorter internode length, and smaller leaf size compared to the straight species was found among a group of 50 container grown seedlings. This selection is suitable for smaller residential and commercial landscapes. This article serves to describe this seedling, which has been given the name ‘Little Filly’ by the author (Fig 1).

C. americana is a deciduous, upright, and spreading shrub with a rounded habit (3). The species has alternate, simple leaves that are broadly oval with a pointed tip. Leaves are 6 to 15 cm (2 to 6 in) long and 2 to 8 cm ($\frac{3}{4}$ to 3 in) wide, with a roughened upper surface and sharply toothed margins

(2). The adaxial leaf surface is a matte dark green while the abaxial leaf surface is paler in color. Leaves turn auburn in the fall. Plants are monoecious and the male flowers are catkins, present in fall and expanding in early spring (5). The female flowers are small with magenta stigmas and bloom in early spring as well. The edible filbert nut is surrounded by an involucre with a ruffled, tattered fringe (2). Plants may form dense thickets that provide cover for nesting birds.

C. americana ranges from southern Maine to western North Carolina, northern Georgia, and northern Alabama, and west to southeastern Alberta, eastern North Dakota and northeastern Kansas (3) and is hardy to USDA hardiness zones 4 to 8 (2). *C. americana* has been used to confer cold hardiness and resistance to eastern filbert blight (*Anisogramma anomala*) in hybrids with *C. avellana* L. (European filbert) for the hazelnut industry (7). In the wild, *C. americana* is found along rock walls and the edges of woods, on



Fig 1. The original seedling of *Corylus americana* ‘Little Filly’ in the field in 2011 at 48 cm (19 in) tall and 58 cm (22 in) wide.

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Fig 2. Stem sections of the compact selection of *Corylus americana* 'Little Filly' on the left and the straight species of *Corylus americana* on the right.

hillsides, clearings and in thickets (5). Plants grow in dry, well-drained soils and tolerate considerable shade.

Origin and Description

C. americana 'Little Filly' was first identified in 2008 among a group of 50 container grown seedlings grown at the University of Connecticut Plant Science Research Facility in Storrs, CT. Seeds were collected with permission from property owners in the towns of Storrs, Mansfield and Willington, CT. Seeds were collected in 2007, provided three months cold, moist stratification in sand, and germinated in a greenhouse in early 2008. In nearly all aspects 'Little Filly' is typical of the species, except for plant size, leaf size, and internode length. 'Little Filly' developed a rounded habit that reached 60 cm (23 in) tall and 70 cm (28 in) wide in 6 years of evaluation, compared to other seedlings, which reached 1.5 to 2 m (60 to 80 in) tall and wide in 6 years of evaluation. During the first two evaluation years, the plant was grown in containers, and in the subsequent four years the plant was grown in the field under full sun conditions. Mature leaves resemble the species, but are smaller at 5 to 7 cm (2 to 3 in) long and 2 to 5 cm ($\frac{3}{4}$ to 2 in) wide (Fig. 2). Internode length is 1 to 2 cm ($\frac{1}{2}$ to $\frac{3}{4}$ in), shorter than the 4 to 5 cm ($1\frac{1}{2}$ to 2 in) seen in plants of the straight species. Foliage is green [Royal Horticultural Society (RHS) 137A; 6] on the adaxial leaf surface when grown in full sun. Fall foliage color of the adaxial leaf surface ranges from dark red (RHS 183A) to red (RHS 179A) to brown (RHS 166A). In five years of evaluation, flowers and fruits were not observed on 'Little Filly'. The straight species typically flowers in 4 to 5 years from seed.

Propagation and Performance

'Little Filly' is readily propagated from softwood stem cuttings taken mid-June to early July, treated with a talc formulation of indole-butyric-acid (IBA) rooting hormone at 3,000 ppm and placed under intermittent mist. Under these conditions, adventitious rooting can typically be observed after 4 to 6 weeks. While there is little published information

about softwood stem cutting propagation of *C. americana* and some authors report difficulty in rooting hazelnut genotypes for nut production (7), the author has achieved 65 to 80% success with the method reported here, depending on the year (data not shown). This method also resulted in over 80% rooting success for *C. cornuta* Marsh. (1), a closely related species to *C. americana*, that occupies the same habitats where the native ranges for these two species overlap (5). It is recommended that rooted cuttings be overwintered in their propagation containers and transplanted after bud swell the following spring. Salable plants in #1 nursery containers have been produced in two calendar years using a 4:2:1 pine bark:sphagnum peat moss:sand growing mix, the recommended low rate of OsmocotePlus® (Scotts Co., Marysville, OH) 15N-3.9P-10K (15-9-12) controlled-release fertilizer, 8 to 9 month formulation, drip irrigation at $\frac{1}{2}$ liter ($\frac{1}{2}$ qt) per day in spring increasing to 1 liter (1 qt) per day in summer, and full sun conditions.

Landscape Uses

Smaller overall size and shorter internode length make 'Little Filly' appear denser and fuller than the straight species. Its compact nature is appropriate for use in confined garden beds and landscape applications. 'Little Filly' can be used as a specimen, massed in groups, in rock gardens and in the mixed shrub and herbaceous perennial border. 'Little Filly' has much to offer for use in dry, infertile shaded locations where landscaping options are limited.

Adaptability and Cultural Conditions

'Little Filly' has been tested in USDA hardiness zone 6a, but it likely will be cold hardy outside this range because the species is hardy to USDA hardiness zone 4 to 8. 'Little Filly' has performed well in exposed locations with full sun, high heat and wind, and compacted soils from pedestrians. The plant performs well in full sun or part shade and tolerates dry and infertile soils once established.

Availability

Currently 'Little Filly' is not in general commerce. Propagules can be obtained by contacting Jessica D. Lubell, Department of Plant Science and Landscape Architecture, University of Connecticut, Storrs.

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