

April 7, 2021

Julia Magliozzo
Director of Operations
Ecogy Energy
315 Flatbush Avenue #393
Brooklyn, NY 11217

**Re: Arcadia Farm, Yorktown, NY
Recommended Tree + Shrub Species for Planting**

Dear Julia:

As requested, we have listed in the attached table several tree and shrub species in various mature size classes that are appropriate for planting at Arcadia Farm.

All are native or non-invasive naturalized species that can be expected to grow well with proper maintenance.

These recommendations are based on our evaluation of the relative performance and condition of the various tree species currently growing on the property, and review of relevant site conditions including local climate, exposures, soil conditions, drainage, and other factors.

Generally, we did not find soil or other site constraints that would severely limit the species that could be planted on this site. Nevertheless, because the property is large with varying topography and exposures, the relative success of different species will depend upon where they are planted. Care should be taken to site trees in areas where the soils, drainage, exposure, and other site factors meet the species' inherent requirements.

Please do not hesitate to call if you have any questions or need any additional information.

Sincerely,

PAUL COWIE + ASSOCIATES



Paul F. Cowie
President

PFC:pc
Encl.

Arcadia Farm, Yorktown, NY

Recommended Tree + Shrub Species for Planting

April 7, 2021

MATURE HEIGHT CLASS	COMMON NAME	BOTANICAL NAME	NAMED CULTIVARS	SHADE PREFERENCE	COMMENTS
Compact (8'-12')	American cranberry-bush	<i>Viburnum opulus</i> var. <i>americanum</i>	'Bailey Compact' 'Compactum' 'Hahs' 'J.N. Select'	Full to partial sun	---
Compact (6'-12')	Spicebush	<i>Lindera benzoin</i>	---	Full to partial sun	Native deciduous shrub. Common forest understory inhabitant.
Compact (8')	Common winterberry	<i>Ilex verticillata</i>	'Spravy' (female) 'Jim Dandy' (male) 'Winter Red' (female) 'Southern Gentleman' (male)	Full to partial sun	Supports bird and butterfly populations. Both male and female specimens required to fruit.
Compact (8')	Oak-leaved hydrangea	<i>Hydrangea quercifolia</i>	'Alice' 'Ruby Slippers' 'Snowflake'	Full to partial sun	Beautiful, long lasting flowers in summer.
Compact (8'-15')	Common witch-hazel	<i>Hamamelis virginiana</i>	'Harvest moon' 'Little Suzie' 'Pendula'	Full sun to full shade	Unique, subtle flowers in fall.
Compact (8')	Bayberry	<i>Myrica pensylvanica</i>	Winter fruit supports bird species.	Full to partial sun	Winter fruit supports bird species.
Compact (8'-15')	Dwarf crabapple	<i>Malus spp.</i>	Several species and cultivars available in various low-spreading, weeping, and dwarf upright forms (e.g. 'Cinderella', 'Coralburst', 'Lollipop', 'Pink Princess', 'Louisa', and many others)	Full sun	Various flower colors. Be sure to select varieties with good resistance to apple scab and cedar apple rust diseases. Be sure to select varieties with an appropriate mature size and form.
Small (10' – 20')	Star magnolia	<i>Magnolia stellata</i>	'Royal Star' 'Waterlilly'	Full sun to partial shade	White flowers in early spring.

MATURE HEIGHT CLASS	COMMON NAME	BOTANICAL NAME	NAMED CULTIVARS	SHADE PREFERENCE	COMMENTS
Small (12'-20')	Fringe tree	<i>Chionanthus virginicus</i>		Full to partial sun	Unique, fragrant white flowers in late spring
Small (15'-30')	Eastern redbud	<i>Cercis canadensis</i>	'Appalachian Red' 'Morton' 'Ace of Hearts' (dwarf form)	Full to partial sun	Small magenta flowers before leaves in early spring.
Small (20'-25')	Serviceberry	<i>Amelanchier x laevis</i> and others	'Cumulus' 'Rogers'	Partial sun to shade	Subtle white flowers before leaves in early spring; Yellow to orange red fall color; Several other suitable species and cultivars of <i>Amelanchier</i> exist.
Medium (30'-50')	Yellowwood	<i>Cladrastis kentukea</i>	---	Full sun	Long panicles of fragrant white spring flowers. Good yellow fall color.
Medium (20'-30')	American hornbeam	<i>Carpinus caroliniana</i>	---	Full sun to full shade	---
Medium (40'-50')	Eastern red cedar	<i>Juniperus virginiana</i>	Several varieties available of various mature heights.	Full sun	---
Medium (25'-40')	Hophornbeam	<i>Ostrya virginiana</i>	---	Full sun to partial shade	
Medium (30'-40')	River birch	<i>Betula nigra</i>	'Heritage' 'Dura-Heat' 'Little King' (dwarf form) 'Cully'	Full sun	More resilient than the white-bark birches, which are prone to severe damage from bronze birch borer and birch leafminer infestations; The cultivars have attractive peeling white bark with undertones of salmon and brown.
Large (40'-60')	Black gum (aka Tupelo)	<i>Nyssa sylvatica</i>	'Wildfire'	Full to partial sun	Brilliant red fall color.
Large (60'-80')	White oak	<i>Quercus alba</i>	---	Full sun	---
Large (60'-80')	Kentucky coffeetree	<i>Gymnocladus dioicus</i>	'Espresso' (male variety that does not produce large seed pods)	Full sun	---
Large (60'-80')	Swamp white oak	<i>Quercus bicolor</i>	---	Full sun	---
Large (50'-80')	American linden	<i>Tilia americana</i>	---	Full sun to partial shade	---
Large (50'-70')	Red maple	<i>Acer rubrum</i>	'Red Sunset' and 'October Glory' are common; many other are available	Full sun to partial sun	Will tolerate somewhat wet and compacted soils.

MATURE HEIGHT CLASS	COMMON NAME	BOTANICAL NAME	NAMED CULTIVARS	SHADE PREFERENCE	COMMENTS
Large (60'-80')	Norway spruce	<i>Picea abies</i>	---	Full sun	Densely branched evergreen; Good choice for large hedgerows.
Large (60'-80')	Eastern white pine	<i>Pinus strobus</i>	---	Full sun	Suitable for evergreen buffer plantings; Do not plant in areas with poorly drained or compacted soils.
Large (40'-60')	White spruce	<i>Picea glauca</i>	---	Full sun	---