United States Department of Agriculture
Natural Resources Conservation Service

Plant Enhancement Activity - PLT18 – Increasing on-farm food production with edible woody buffer landscapes

Enhancement Description

This enhancement is for the enhancing of windbreaks, alley cropping, silvopasture, or riparian forest buffer systems with trees and shrubs that produce edible products for human or wildlife consumption.

Land Use Applicability

Cropland, Pastureland

Benefits

An edible landscape is special in that it is planted with trees and shrubs that produce foods that we can eat/sell or that are beneficial for wildlife. Trees and shrubs can be used to provide shade, to improve microenvironments or to protect crops, or to mitigate challenging environmental issues. In an edible landscape they provide more than just a protective structure, they become sources of food that produce home grown and nutritious fruits and nuts, increase household food security, and create sites that provide critical habitat for pollinators and wildlife.

Conditions Where Enhancement Applies

This enhancement applies to all crop or pasture land use acres.

Criteria

1. Follow appropriate standard for basic agroforestry practice design.
2. Plant tree, shrub and bramble species that produce food and/or culinary items to create an edible landscape. Lists of suitable woody plants will be available at your local NRCS field office.
3. Maximize planting space by creating vertical structure with varying plant heights and plant sizes.
4. Use all of the following methods to improve edible food production:
   - Add at least one edible food producing row to existing agroforestry practices or incorporate at least one edible food producing row into new planting designs.
   - Adding planting masses in scattered clusters is encouraged.
   - Plant a variety of tree, shrub and bramble species (3 or more; use native species whenever possible) with varying flowering times to favor pollinator species and to add a longer harvest time frame. Choosing several fruit bearing cultivars can provide an extended period of seasonal production.

- Minimize herbicide use. Use spot weed treatments and avoid spraying when flowers are present.

Adoption Requirements
This enhancement is considered adopted when each selected acre has been planted to the desired tree, shrub and bramble species that produce food or culinary item.

Documentation requirements
1. List of edible food producing trees, shrubs and brambles.
2. Brief written description of the activities (criteria) completed with dates of application and receipts for planting stock, herbicides, etc.
3. Acreage of the enhancement activity.
4. Delineations on a map or aerial photo of landscape layout and placement.

References

- *Working Trees for Agriculture*. 2008. USDA National Agroforestry Center, Lincoln, NE.
- *Agroforestry: Sustaining Native Bee habitat for Crop Production*. August 2006. Agroforestry Notes – AF Note 32. USDA National Agroforestry Center, Lincoln, NE.
- *Improving Forage for native Bee Crop Pollinators*. August 2006. Agroforestry Notes – AF Note 33. USDA National Agroforestry Center, Lincoln, NE.
- *Edible Woody Landscapes for People and Wildlife*. 2001. University of Nebraska – Lincoln, Cooperative Extension.
- *Fruits and Nuts for Edible Landscaping*. May 2001. Purdue University Cooperative Extension Service. Landscape Horticulture, HO-190-W.

PLANT ENHANCEMENT ACTIVITY

PLT18 – OR Increasing on-farm food production with edible woody buffer landscapes.

Oregon Criteria

Below are lists of suggested Native and Non-native woody plants to establish. Other woody plants may be appropriate for use. For approval for other woody plant species, please contact one of these people:

Kathy Pendergrass**,** State Plant Materials Specialist
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Misty Seaboldt, State Forestry Specialist
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Please refer to the following documents for further information about cultural needs and adaptability of recommended plants.

- *Oregon and Washington Guide for Conservation Seedings and Plantings*, April 2000. It can be downloaded at: http://www.or.nrcs.usda.gov/technical/ecs/plants/general_info.html
- *Oregon Plant Materials Technical Note No. 13 - Plants for Pollinators in Oregon".* It can be downloaded at: http://www.or.nrcs.usda.gov/technical/ecs/plants/plants-technotes.html .
- For Eastern Oregon plant recommendations also refer to the *Washington Plant Biology Technical Note No. 24 - Plants for Pollinators in the Inland Northwest* which can be downloaded at http://www.plant-materials.nrcs.usda.gov/pubs/wapmctn10179.pdf .

WARNING: Be certain in your plant identification and only consume parts of plants known to be edible and safe for human consumption.

Native Plants:

Vines:

Common Name	Scientific Name	Part eaten
Evergreen or trailing blackberry	*Rubus ursinus*	berries
Wild grape	*Vitus californica*	grapes

Shrub or bush from 2-8 feet in height:

Common Name	Scientific Name	Part eaten
Tall Oregon grape	*Berberis aquifolium*	berries
Cascade Oregon grape	*Berberis nervosa*	berries
Creeping Oregon grape	*Berberis repens*	berries
Salal	*Gaultheria shallon*	berries
Golden currant	*Ribes aureum*	berries
Wax currant	*Ribes cereum*	berries
Red currant	*Ribes sanguinium*	berries
Baldhip, Nutka, Swamp or Woods Rose	*Rosa gymnocarpa, R. nutkana, R. pisocarpa, R. woodsii*	hips
Blackcap	*Rubus leucodermis*	berries
Thimbleberry	*Rubus parviflorus*	berries
Salmonberry	*Rubus spectabilus*	berries
Huckleberries: Dwarf, Mountain, Oval Leaf, Evergreen, Red	*Vaccinium caespitosum, V. membranaceum, V. ovalifolium, V. ovatum, V. parvifolium*	berries

Large shrub or small tree 8-15 feet:

Common Name	Scientific Name	Part eaten
Hairy manzanita	*Arctostaphylos columbiana*	berries
Red-stem Ceanothus	*Ceanothus sanguineus*	seed
Blueblossom	*Ceanothus thrysiflorus*	seed
Buckbrush	*Ceanothus velutinous*	seed
Red osier dogwood	*Cornus sericea*	flower
Western Hazelnut	*Corylus cornuta spp. californica*	nuts
Oceanspray	*Holodiscus discolor*	fruits
Klamath plum	*Prunus subcordata*	Plums/fruits (seeds and leaves are toxic to livestock)
Chokecherry	*Prunus virginiana*	Cherries/fruits (seeds and leaves are toxic to livestock)
Blue Elderberry	*Sambucus cerulea*	Berries (must be cooked or fermented); all other parts are toxic to humans and livestock!

Tree 15-30 feet:

Common Name	Scientific Name	Part eaten
Serviceberry	*Amelanchier alnifolia*	berries
Western crabapple	*Malus fusca*	Apples/fruits
Chokecherry	*Prunus virginiana*	Cherries/fruits (seeds and leaves are toxic to livestock)

Tree over 30 feet in height:

Common Name	Scientific Name	Part eaten
Madrone	*Arbutus menziesii*	berries

Oregon Oak	*Quercus garryana*	Acorns (acorns and leaves toxic to livestock)

Non-native Plants:

Vine: Grape

Shrub or bush from 3-8 feet in height:
Blackberry (erect)
Blueberry
Currant
Elderberry
Gooseberry
Raspberry

Large shrub or small tree 8-15 feet:
Apples (on selected rootstocks)
Apricot
Cherry (tart)
Elderberry
Filbert
Pawpaw
Peach
Plum (European)
Serviceberry

Tree 15-30 feet:
Apple
Cherry
Crabapple
Filberts/Hazelnuts
Pear
Serviceberry

Tree over 30 feet in height:
Walnut (White)