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:
   a. 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.
   b. Adding planting masses in scattered clusters is encouraged.
   c. 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.

d. 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

Dana, M.N. 2001. Fruits and Nuts for Edible Landscaping. Purdue University Cooperative Extension Service. Landscape Horticulture, HO-190-W. http://www.hort.purdue.edu/ext/HO-190.pdf

Josiah, S.J. and J. Lackey. 2001. Edible Woody Landscapes for People and Wildlife. University of Nebraska Cooperative Extension.Lincoln, NE. http://www.unl.edu/nac/brochures/sfp/sfp3.pdf

USDA-NAC. 2008. Working Trees for Agriculture. USDA National Agroforestry Center, Lincoln, NE. http://www.unl.edu/nac/workingtrees/wta.pdf

USDA-NAC. 2006. Agroforestry: Sustaining Native Bee habitat for Crop Production. Agroforestry Notes – AF Note 32. USDA National Agroforestry Center. Lincoln, NE. http://plants.usda.gov/pollinators/Agroforestry_Sustaining_Native_Bee_Habitat_for_Crop_Pollination.pdf

USDA-NAC. 2006. Improving Forage for native Bee Crop Pollinators. Agroforestry Notes – AF Note 33. USDA National Agroforestry Center. Lincoln, NE. http://plants.usda.gov/pollinators/Improving_Forage_for_Native_Bee_Crop_Pollinators.pdf

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:

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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 ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn2b_pollinators_inland_nw.pdf.
- Plant factsheets and guides on individual species can be found for some species at the NRCS PLANTS Database at: http://plants.usda.gov/java/factSheet.

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

PLANT SELECTIONS

Native Plants:

Vines:

Common Name	Scientific Name	Bloom timing	Part eaten
Evergreen or trailing blackberry	*Rubus ursinus*	Early-mid	berries
Wild grape	*Vitus californica*	Mid	grapes

Shrub or bush from 2-8 feet in height:

Common Name	Scientific Name	Bloom timing	Part eaten
Tall Oregon grape	*Berberis aquifolium*	early	berries
Cascade Oregon grape	*Berberis nervosa*	Early-mid	berries
Creeping Oregon grape	*Berberis repens*	early	berries
Salal	*Gaultheria shallon*	mid	berries
Golden currant	*Ribes aureum*	early	berries
Wax currant	*Ribes cereum*	mid	berries
Red currant	*Ribes sanguinium*	early	berries
Baldhip, Nutka, Swamp or Woods Rose	*Rosa gymnocarpa, R. nutkana, R. pisocarpa, R. woodsii*	mid	hips
Blackcap	*Rubus leucodermis*	mid	berries
Thimbleberry	*Rubus parviflorus*	mid	berries
Salmonberry	*Rubus spectabilus*	early	berries
Snowberry	*Symphoricarpos albus*	mid	Berries not edible to humans, good for birds; flowers for pollinators
Blueberries and Huckleberries: Dwarf, Mountain, Oval Leaf, Evergreen, Red	*Vaccinium caespitosum, V. membranaceum, V. ovalifolium, V. ovatum, V. parvifolium*	Early-mid	berries

Large shrub or small tree 8-15 feet:

Common Name	Scientific Name	Bloom timing	Part eaten
Hairy manzanita	*Arctostaphylos columbiana*	early	berries
Red-stem Ceanothus	*Ceanothus sanguineus*	mid	seed
Blueblossom	*Ceanothus thrysiflorus*	mid	seed
Buckbrush	*Ceanothus velutinous*	mid	seed
Red osier dogwood	*Cornus sericea (stolonifera)*	mid	Flower, berries
Western Hazelnut	*Corylus cornuta spp. californica*	early	nuts
Oceanspray	*Holodiscus discolor*	late	fruits

Black twinberry	*Lonicera involucrata*	mid	fruits
Indian plum	*Oemleria cerasiformis*	early	fruits
Klamath plum	*Prunus subcordata*	mid	Plums/fruits (seeds and leaves are toxic to livestock)
Chokecherry	*Prunus virginiana*	mid	Cherries/fruits (seeds and leaves are toxic to livestock)
Blue Elderberry	*Sambucus cerulea*	mid	Berries (must be cooked or fermented); all other parts are toxic to humans and livestock!

Tree 15-30 feet:

Common Name	**Scientific Name**	**Bloom timing**	**Part eaten**
Serviceberry	*Amelanchier alnifolia*	mid	berries
Western crabapple	*Malus fusca*	mid	Apples/fruits
Bitter cherry	*Prunus emarginatum*	mid	Cherries/fruits (seeds and leaves are toxic to livestock)
Cascara	*Rhamnus (Frangula) purshianus*	mid	Berries for wildlife – laxative effects on humans

Tree over 30 feet in height:

Common Name	**Scientific Name**	**Bloom timing**	**Part eaten**
Madrone	*Arbutus menziesii*	mid	berries
Oregon Oak	*Quercus garryana*	mid	Acorns should be process for consumption (acorns and leaves toxic to livestock)

<u>Non-native Plants:</u>

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)

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

Tree over 30 feet in height:
Walnut (White)