

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

HEDGEROW PLANTING

(feet)

CODE 422

DEFINITION

Establishing a living fence of shrubs or trees in, across, or around a field.

PURPOSES

To delineate field boundaries, serve as fences, establish contour guidelines, provide wildlife food and cover, provide screens, or improve the landscape.

CONDITIONS WHERE PRACTICE APPLIES

Within, across, or around fields, yards or unsightly areas. This practice is applicable to all agricultural and urban lands in California that meet the site requirements of specific species of woody plants.

CRITERIA

Refer to the appropriate MLRA Vegetative Guide in Section II or where available, Windbreak Suitability Groups, in the Field Office Technical Guide (FOTG) for adapted species. Species selection should be given careful consideration to minimize possible conflict between plantings and crops to be grown. Use local or known plant sources whenever possible. Consideration should be given to flowering and otherwise attractive species as well as those providing choice wildlife food and cover.

Plant materials should be ordered as early as practical in order to have the best selection, insure availability and be cost effective (generally after November 1).

A single species normally will be used in a row except where soil type dictates a change or where the species to be mixed are compatible. Mixed species should be planted in groups of 12 or more.

If root pruning is planned to control shallow roots, do not prune inside the drip line and not deeper than two feet. Prune each side every third year.

Consider the use of snow fence, shingles, or other suitable materials on one or more sides of individual plants to reduce wind damage to plants.

Incorporating farm access roads to serve as isolation strips should be considered where possible. An isolation strip is a planned, non-vegetated area around a hedgerow planting to protect the planting from competition and fire. Minimize fire hazards by keeping isolation strips clear of crop residues, weeds, and trash.

On slopes less than six percent, plant consistent with cropping and ownership pattern.

On slopes greater than six percent, consider planting on the contour consistent with the cropping and ownership patterns.

Leave enough room at each end for cultivation equipment to make adequate turns.

Where natural beauty is a landowner objective, species that are evergreen or those that have features such as showy flowers, brilliant fall foliage or persistent colorful fruits should be used.

When landowners are interested in wildlife values, planning considerations should consider food and cover requirements for wildlife. Wildlife values can be enhanced by including one or more rows of shrubs, shrub-like trees or conifers on the lee side.

All sites and all plant species may be subject to unacceptable browsing and animal damage. Planning will include preparing estimates of the occurrence of animal populations which have the potential of causing damage. Sightings of gopher mounds, animal trails, frequency of scat, and evidence of browsing on native plants will yield data that can help determine the extent of plant protection needed. On certain sites all species will be susceptible to unacceptable levels of animal damage. On other sites no species may be subject to damage and plant protection may not be necessary.

CONSIDERATIONS

Water Quantity

This practice may increase soil moisture along the edge of fields in the humid and colder regions and may slow down runoff and trap snow. Some of this effect may be counteracted by an increase in transpiration within the planting. The practice may cause a soil moisture deficit in semi-arid regions.

1. Effects on the water budget, especially on volumes and rates of runoff, infiltration, evaporation and transpiration.
2. Effects of snowcatch and melt on water budget components.
3. Effects of vegetation on soil moisture.

Water Quality

This practice may reduce erosion by having perennial vegetation on a portion of the field. It eliminates the practice of tilling and planting the ends up and down slopes and reduces the erosion from concentrated flow in furrows and along rows. This may reduce the amount of sediment and related pollutants delivered to the receiving waters. When a field border is located such that the runoff flows across the border in sheet flow it may cause the deposition of sediment and reduce the amount of sediment from entering surface waters.

1. Effects on erosion and the movement of sediment and soluble and sediment-attached substances carried by runoff.
2. Filtering effects of vegetation on movement of sediment and dissolved and sediment-attached substances.
3. Effects on the movement of dissolved substances to ground water.

Endangered Species Considerations

Determine if installation of this practice with any others proposed will have any effect on any federal or state listed Rare, Threatened or Endangered species or their habitat. NRCS's objective is to benefit these species and others of concern or at least not have any adverse effect on a listed species. If the Environmental Evaluation indicates the action may adversely affect a

listed species or result in adverse modification of habitat of listed species which has been determined to be critical habitat, NRCS will advise the land user of the requirements of the Endangered Species Act and recommend alternative conservation treatments that avoid the adverse effects. Further assistance will be provided only if the landowner selects one of the alternative conservation treatments for installation; or at the request of the landowners, NRCS may initiate consultation with the Fish and Wildlife Service, National Marine Fisheries Service and/or California Department of Fish and Game. If the Environmental Evaluation indicates the action will not affect a listed species or result in adverse modification of critical habitat, consultation generally will not apply and usually would not be initiated. Document any special considerations for endangered species in the Practice Requirements Worksheet.

PLANS AND SPECIFICATIONS

Methods of planting and maintaining desired vegetation.

Single row plantings are acceptable for living fences, screening and the delineation of field borders or contour guidelines. For wildlife cover, single row plantings may be interrupted at regular intervals.

Clump plantings may be made in field corners, etc.

Avoid creating blind corners at road intersections, do not plant closer than 30 feet from the edge of the right-of-way. For plantings under or immediately adjacent to power, telephone or similar above-ground facilities use shrubs or small tree species.

Spacing of plants shall depend on the species selected, width of the cultivation equipment, and the amount of land available for planting. For spacing guidelines see Windbreak / Shelterbelt Establishment - 380.

Isolation strips should be maintained on all plantings for a minimum of 8 feet or the width of the cultivation equipment plus 4 feet. Minimize fire hazards by keeping isolation strips clear of crop residues, weeds, and trash.

Site preparation to be preformed will depend on the need to eliminate all competitive growth, which may be accomplished by discing or other methods.

Water as required, particularly during the first year of establishment.

OPERATION AND MAINTENANCE

An operation and maintenance plan must be prepared by the Designer for use by the owner or other responsible for operating this practice. The plan should provide specific instructions for operating and maintaining the system to insure that it functions properly. It should also provide for periodic inspections and prompt repair or replacement of damage components.