



Hedgerows (CPS 422)

Part of Fibershed's *Carbon Farm Resource Guide*, available on-line at: fibershed.org/resource-guide



Benefits of Hedgerows

- ▶ Increase carbon sequestration in soils and vegetation
- ▶ Increase surface water infiltration and groundwater recharge
- ▶ Improve and filter air and water quality
- ▶ Reduce erosion and chemical drift
- ▶ Increase plant diversity and forage opportunities
- ▶ Increase local and regional biodiversity
- ▶ Enhance pollen, nectar, and nesting habitat for pollinators
- ▶ Enhance integrated pest management by providing habitat for wildlife and beneficial insects
- ▶ Screen and provide barriers to wind and noise
- ▶ Establish living fences



Planning and Designing a Hedgerow

- ▶ Determine the primary function(s) of your hedgerow to guide design. For example, to support a windbreak, choose site to block prevailing winds; for a visual screen, select shrubs and trees with evergreen or dense growth habits.
- ▶ Hedgerows should be designed with regionally adapted plant palettes; choose plants compatible with the soil, water, wind and light conditions of your site.
 - Include multilayered perennial species and quick growing annual plants to fill gaps while hedgerow is young and becoming established.
 - Consider a mix of trees, shrubs, forbs, grasses and other herbaceous plants.
- ▶ Plant properties to select for can include natural dyes, medicinal (for both human and livestock), flowering time, propagation for seeds & cuttings, pollinators such as milkweed, and scent.
- ▶ Choose plants for the selected site and function, with desired height and width.
 - Select appropriate plants for sun exposure: Note plantings south and west facing will receive more sunlight overtime than plants facing north and east.
 - Hedgerows are a linear feature typically 10-20' wide, depending upon single or multi row installation.
 - Space plants with enough room to grow into their mature shape: 7-10 feet off center.
- ▶ Sourcing plants: Start plants from seed or purchase from a local nursery to plant directly into the ground. Contact your local RCD or Fibershed (hello@fibershed.com) for a list of local nurseries in your area.

"Agricultural land management practices can measurably increase rates of carbon sequestration, resulting in enhanced soil quality, soil water holding capacity, increased soil carbon and forage production."

– Ryals and Silver 2013



Installing a Hedgerow

- ▶ Stake and mark the planting area, using a measuring tape as a guide, and space plants by placing the desired plants in place along the line.
- ▶ Establish tallest plants (dwarf trees or shrubs) as the base plants; layer plants from tallest to shortest; alternate different species based on this scaffolding/foundation.
- ▶ Establish second row of plants slightly in front of first line and stagger in between the foundation plants. Supporting plants, shrubs, herbs, flowers, vines or companion plants may best be planted in subsequent years or seasons once trees and their corresponding fungal communities are established.
- ▶ Shade tolerant herbaceous perennials can be planted under the trees and shrubs.
- ▶ Add edible and dye plants as space fillers.



Complementary Practices

- ▶ Windbreaks/Shelterbelts (CPS 380)
- ▶ Target Grazing and weed management (CP S528 & 314/315)
- ▶ Integrated Pest Management (CPS 595)
- ▶ Mulching (CPS 484)



Cost References

- ▶ California's Healthy Soils Program offers grants to reimburse hedgerows at \$9.50/linear foot, but hedgerow projects may still require additional cost share and labor input, depending on location and selected plants.
- ▶ Producers who propagate their own plants and/or contribute labor in-kind can reduce the added costs required to install a hedgerow.



Managing and Maintaining a Hedgerow

- ▶ Maintenance is required during establishment of plants for the first 1 to 4 years.
- ▶ Determine what protection is needed from animal impact. Consider gopher protection and/or temporary or permanent fence to protect newly installed plants.
- ▶ Determine what type of irrigation is needed for plant survival. Note, until plants are established, they will need to be watered regularly during the dry months.
 - Consider your access and terrain to determine the type of irrigation system such as drip irrigation, hand water or pump water.
 - Alternatively a plant Cocoon or other one-time water vessel can be installed.
- ▶ Weed control: consider mulch, implement target grazing or hand pull.
- ▶ Avoid unnecessary pruning or trimming, especially during spring through mid-summer when you are likely to disturb nesting birds.



Technical Support

- ▶ Hedgerow Farms, hedgerowfarms.com
- ▶ Independent permaculture landscapers, such as [Permaculture Artisans](#)
- ▶ Resource Conservation District (see CARCD's [website directory](#) to find which one serves your area)
- ▶ Natural Resources Conservation Service (see NRCS's [service center](#) locator to find which office serves your area)



FIBERSHED

www.fibershed.org