



Hedgerows make a comeback

The staple of European agriculture provides a profitable, practical approach to biodiversity

Peoria Gardens planted a small experimental multispecies hedgerow four years ago. PHOTO COURTESY OF PEORIA GARDENS

BY ERICA BROWNE GRIVAS

As sustainable land management practices gain momentum, growers and homeowners are rediscovering the value of the humble hedgerow — a long-standing staple of European agriculture.

And for good reason: hedgerows are ecological workhorses.

These multifunctional plantings offer far more than nostalgic charm. They provide critical habitat and forage for pollinators, improve biodiversity, pollinate adjacent crops, and support soil health and water conservation, according to “A Guide to Hedgerows,” a publication of the Oregon State University Extension Service.

Hedgerows also sequester carbon, control erosion, suppress invasive weeds, reduce pest pressure, and can even produce food for humans and livestock or supply profitable nursery stock.

The art of hedge laying developed in the Middle Ages, typically started by weaving hawthorn whips to create a living structure or “hagas” (hawthorn in Old English), increased by propagation assisted by birds drawn to the berries. By layering multiple plants of varied species, heights, and benefits, the hedgerow’s power is multiplied exponentially, attracting diverse wildlife and microorganisms.

Jude Hobbs, a permaculturist designer and educator, calls these “multifunctional hedgerows.” Hobbs consults with growers through Agro-Ecology Northwest on plantings that serve ecological, functional and practical goals and teaches through Cascadia Permaculture. “In the last 20 years there’s been a big return to planting hedges,” on both sides of the Atlantic, nursery consultant Nicholas Staddon said.

England, once famed for its hundreds of thousands of miles of picturesque hedgerows now has perhaps half that number, following widespread removal during the industrialization of farming. Now, Staddon noted, the British government offers subsidies to encourage hedgerow restoration.

Hedgerows also serve an increasingly urgent role as wildlife corridors, offering food and shelter to species displaced by expanding urban and suburban development.

In England the hedges, which are probably 20-30 feet wide, “allow for larger animals to move through landscape and remain hidden, and on either side, they are planting crops like grasses and flowers that would attract pollinators and foraging birds,” Staddon said.

The central hedge becomes critical nesting space, while the flanks, perhaps 10–15 feet wide, prove a food source for humans and wildlife and nesting cover for

ground-nesting animals.

“Millions of creatures have moved in alongside us,” Staddon said, adding that green spaces of all kinds, from gardens to highways, parks, and grower’s fields represent an opportunity to recreate much-needed habitat here.

Cynthia Lafferty, of Doak Creek Native Plant Nursery and native plant landscape consultant in Eugene, agreed, noting that Oregon Department of Transportation is trying to educate municipalities, instructing them “not to spray the flowers on the side of the highways” because “they’re not weeds — they’re an important part of the ecosystem.”

For growers and land managers, hedgerows that reconnect ecosystems represent a rare win-win: beautiful, functional, and ecologically smart.

Hedgerows at work in the landscape

Among the many benefits of hedgerows, Hobbs offers some compelling examples. In one study from the University of California Cooperative Extension, researchers found that permitting bird access to cocoons during the wintertime increased codling moth predation from 11% to 46%, and predation increased with an increasing amount of natural habitat within 500 meters (one-third mile) of the orchard. Hobbs added»

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that the windbreak effect of hedgerows is equally important — crop yields can increase anywhere from 5 to 44% when protected by a well-placed hedgerow.

One of Hobbs' clients said a hedgerow helped save their blueberry crop. "One farmer I worked with, the birds were eating their blueberries. They planted a bunch of bird attracting plants in the hedgerow," such as elderberry (*Sambucus* spp.), goumi (*Elaeagnus multiflora*), and huckleberry (*Vaccinium parvifolium*), "which drew birds away from the crops."

Eric Hammond, head grower for Salem's **Heritage Seedlings and Liners**, has seen the benefits to ecological-minded planting firsthand.

"Here at Heritage, we have a garden along our greenhouse," he said, referring to a casual mixed tree-shrub border including vine maple (*Acer circinatum*), red twig dogwood (*Cornus sanguineum*), Oregon white

oak (*Quercus garryana*), and Alaskan yellow cedar (*Cupressus nootkatensis*).

"Thanks to that we have a wild population of *Delphastus* beetle which eat mites and whiteflies, so I don't have to inoculate with *Delphastus* in our biological control program. The bad insects are always going to come, but the good ones seem more inclined to come if we have that diverse border. It reduces our reliance on pesticide, and provides cost savings on labor, materials and reduced environmental impact."

Compared to traditional monoculture hedges, which often require constant battling with the hedge trimmer, hedgerows deliver higher reward with lower maintenance, he said. The UK's Wildlife Trust recommends pruning hedgerows every two to three years in winter, rotating through different sections to preserve nesting wildlife and ensure full fruiting and flowering.

Traditional single-species hedges offer

privacy screening, but Hobbs suggested that multifunctional hedgerows can offer a much broader range of advantages for growers, including:

- Enhancing ecological biodiversity.
- Supplying food for livestock, wildlife, and humans.
- Providing habitat for pollinators and beneficial insects.
- Conserving water.
- Acting as effective windbreaks.
- Helping to control invasive weeds.
- Reducing erosion and improving soil health.
- Supporting waterways through better stormwater management.
- Sequestering carbon and building long-term soil resilience.
- Serving as attractive, functional borders or privacy screens.
- Reducing noise, dust, chemical drift, and other pollution.
- Creating propagation banks for nursery product.
- Diversifying farm income with salable flowers, fruits, and basketry materials.
- Delivering beauty and seasonal interest year-round.

Growers leading by example

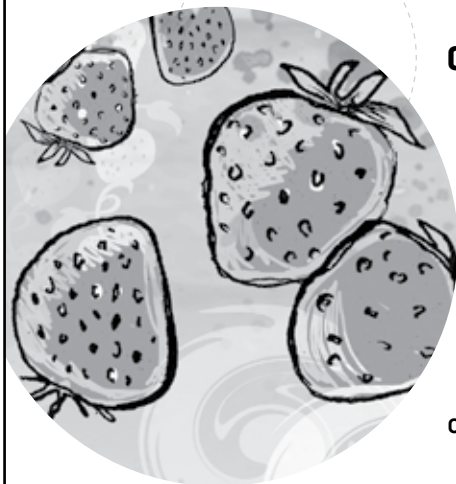
Spurred by the success of a smaller hedgerow experiment at **Peoria Gardens**, Kathryn Weeks installed all-native hedgerows ranging from 180–700 feet long last year at her family's wholesale nursery in Corvallis, which has 10 out of 60 acres in production.

What prompted the move?

"Environmental responsibility is an important value for our family nursery," Weeks said. "We wanted to establish conservation spaces on our farm that were beautiful and full of life while also helping us to form a barrier around the nursery operation that could integrate with our existing IPM work."

"Our nursery is surrounded by grass seed fields. When the fields are cut, the greenhouses tend to see an influx of pests, in particular Western flower thrips [*Frankliniella occidentalis*]. The goal of the hedgerows is to provide a barrier and habitat for those pests as well as the predatory insects that feed on them."

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The trees and shrubs included are blue elderberry (*Sambucus nigra* ssp. *cerulea*), hawthorn (*Crataegus* spp.), cascara (*Frangula purshiana*), snowberry (*Symphoricarpos albus*), Douglas spirea (*Spiraea douglasii*), rugosa rose (*Rosa rugosa*), Oregon grape (*Mahonia aquifolium*), mock orange (*Philadelphus lewisii*), twinberry (*Lonicera involucrata*), osoberry (*Oemleria cerasiformis*), ninebark (*Physocarpus capitatus*), oceanspray (*Holodiscus discolor*), Scouler's willow (*Salix scouleriana*), and buckbrush (*Ceanothus cuneatus*).

The hedges feature grasses and perennials like large-leaved lupine (*Lupinus polyphyllus*), milkweed (*Asclepias speciosa* or other native *Asclepias* spp.), yarrow (*Achillea millefolium*), California mugwort (*Artemisia douglasiana*), goldenrod (*Solidago canadensis* or *Solidago lepida*), self-heal (*Prunella vulgaris* var. *lanceolata*), blue wild-rye (*Elymus glaucus*), and tufted hair grass (*Deschampsia cespitosa*).

Regarding uses in the field, Weeks said, "I see the potential uses for hedgerows in the nursery industry as three-fold: as a part of a larger IPM program both as a 'trap' for pests and habitat for beneficials that eat those pests; as stock for cuttings; and being good stewards of the community and our environment, which is what our industry is all about!"

Doak Creek Nursery's edges are skirted by hedgerows. One includes nootka rose (*Rosa nutkana*), mock orange (*Philadelphus coronarius*), Douglas spirea (*Spiraea douglasii*), native hazelnut (*Corylus americana*), snowberry (*Symphoricarpos albus*), cascara (*Frangula purshiana*), and madrone (*Arbutus menziesii*), punctuated by oak trees.

"Oak trees are so important," said Lafferty. "They provide habitat for a little over 500 species worldwide. They call them the keystone tree on the planet," she added, referring to ecologist Douglas Tallamy's work.

Another features red-flowering currant (*Ries sanguineum*) and twinberry (*Lonicera involucrata*), which delight the hummingbirds, and serviceberry (*Amelanchier canadensis*), which draws cedar waxwings in droves.

Nursery industry opportunities

Staddon highlighted hedgerows as an expanding outlet for the gardening market, dovetailing with the movement toward wildlife friendly gardening.

"I see more interest in gardening for plants and wildlife than I've seen in the last 40 years," he said. He cited **Bountiful Farms** in Woodburn, Oregon, which sells started *Fagus* and *Carpinus* hedges. He also recalled working with **Monrovia** it sold boxed Japanese maple espaliers.

"Garden centers need to be constantly giving their customer base ideas," Staddon said, "and they also need to give marketing departments ideas. With hedging, there's a terrific opportunity to sell a collection of plants as a hedge. It would need to be done regionally."

Beyond offering premade hedgerows, he suggested, garden centers can spotlight the garden and ecological value of hedgerows by creating creative vignettes of hedgerow choices for various benefits (such as edible, multilayered, all-season interest), offer sketches of hedgerow designs, and lists of the wildlife supported by and attracted to hedgerows.

"Even the smallest hedgerow on a patio can make a huge impact on wildlife," Staddon noted. "Let's say all you have is a patio or tiny back garden. You could even do small hedgerow of blueberries (*Vaccinium* spp.), blackberries (*Rubus* spp.) and gooseberries (*Ribes uva-crispa*). They will live quite happily in a container or raised bed for two to three years."

Including an espalier will expand your options. Or why not combine individual container-grown plants to make your hedgerow?

"Part of the job is providing solutions," said Staddon. "You want to send them away with something that will work short or long term."

Plant selection and maintenance

Depending on the grower or gardener's needs, there are nearly countless combinations of plant choices. Among trees, Staddon recommends *Acers*, *Rhus*, *Sorbus*, *Eucalyptus*, *Cornus*, *Malus* (cra-bapple), fruit-bearing oaks such as pin ➤

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oak (*Quercus palustris*), *Magnolia* ‘Little Gem’, birch (*Betula* spp.), *Sambucus*, *Cercis occidentalis*, *Crataegus*, *Hamamelis* spp. and fragrant *Halesias*.

Some favorite shrub choices are *Arbutus compacta*, *Cotoneaster*, hollies, winterberries, especially *Ilex verticillata* ‘Sparkleberry’, ‘Black Alder’ and ‘Winter Red,’ smaller *Aeschylus*, *Rosa rugosa* for their hips, cherry laurels (*Prunus laurocerasus*), *Elaeagnus*, upright *Taxus*, *Pyracantha* ‘Yukon Bell’, *Physocarpus* ‘Diabolo’, any twig dogwood (*Cornus sanguineum*), *Viburnum*, *Mahonia*, *Cotinus*, and *Ribes*.

At Peoria, Weeks has taken an experimental approach. She tried smaller hedgerows for several years and found that planting into landscape fabric significantly improved weed suppression while enhancing soil warmth and moisture retention.

She removed the fabric after three years once the shrubs were large enough

to shade out weeds. For her new hedgerows, she prepped areas with high weed pressure using landscape fabric for two growing seasons.

She also experimented by planting into the fabric in some sections, while in others she removed it added either bark mulch or a mix of California poppies (*Eschscholzia californica*), meadowfoam (*Limnanthes alba*), and white perennial clover (*Trifolium repens*) as underplanting. Both overhead and drip irrigation supported healthy growth, but drip offered better ease of use and water efficiency.

Overall, she cautioned, “It takes time and money to plan and implement successful hedgerows if you don’t want a lot of plant die-off. It is a multi-year process with ongoing maintenance needs, not a set-it and forget-it kind of project. Without annual weeding work, it can quickly turn into an invasive blackberry hedge instead

of the beautiful multi-species multi-function hedgerow you had envisioned.”

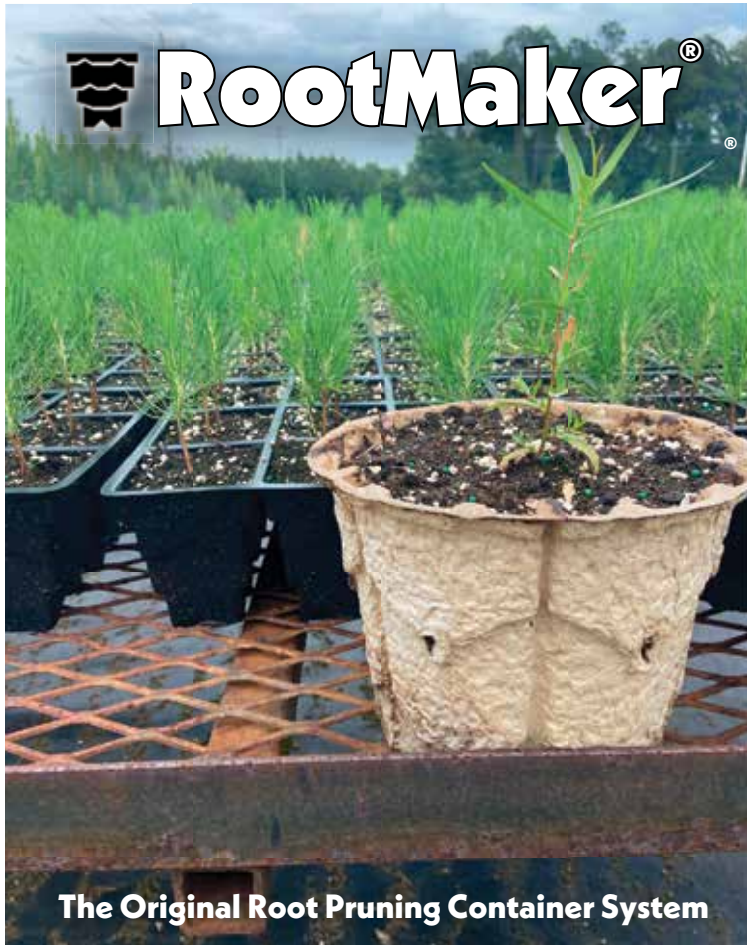
Hammond agreed.

“We need to care for all aspects of our space. At the farm we spend a good bit of money, time and labor to take care of the edges. When you have lots of small fields, that means more edges.” Weeding before plants go to seed is critical, he said.

Yet, Weeks added, “The payoff in beauty and habitat is more than worth it!”

That payoff is especially evident at the edges — where hedgerows provide windbreaks, pollinator pathways, and visual appeal, proving that the margins of our landscapes can be just as productive — and profitable — as the center. ☺

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