

Metro, the regional government serving the Portland area, is in the process of restoring an oak savanna at Graham Oaks Natural Area in Wilsonville, Oregon. The former farm has been replanted with natives. PHOTO BY CURT KIPP



Repairing the prairie

Restoration efforts in the Willamette Valley have turned native plants and seeds into hot commodities

By Kym Pokorny

Atop Steiwer Hill, Lynda Boyer stands under 400-year-old oaks and looks proudly at the grasses and wildflowers stretching out over the gently rolling countryside.

The scene wasn't always so. Less than 10 years ago, the landscape was buried in blackberries, Scotch broom, English ivy and poison oak — a far cry from the native savanna and prairie that once covered a million acres of the Willamette Valley.

It's been Boyer's job, as restoration biologist and native seed manager for Heritage Seedlings & Liners, to restore 200 acres of oak habitat just south of

Salem that were purchased by owners Mark and Jolly Krautmann in 2002.

"In this business, we make a living from resources we inherited from generations before us," Mark Krautmann said. "We have a responsibility to honor those generations and leave it better than we found it."

It wasn't so long ago that the landscape of the Willamette Valley was swept with grasses, dotted with oak trees and quilted with wildflowers.

Lomatium twinkled like yellow stars amid the tangle of grasses. With its long stems and sunny yellow flowers, tarweed belied its unattractive common name. Larkspur, Oregon sunshine, pink

checkermallow, lupine, aster, columbine, *Clarkia*, all lent their colors and textures to the wide open spaces.

An endangered landscape

The prairie evolved in a dry climate that arrived about 10,000 years ago as the last ice age ended. The land began changing again 4,000 years later when Mount Mazama erupted, carving out Crater Lake and shifting the climate to warmer, wetter winters.

Left to its own devices, the oak savanna would have eventually progressed to a full-fledged forest, but Native Americans such as the Kalapuya in the Willamette Valley learned

▲ REPAIRING THE PRAIRIE

to keep this succession at bay with fire. This maintained the savanna and allowed continued access to the best food sources.

The arrival of Euro-American agriculture and development in the early to mid-1800s put a stop to burning, and much of the prairie was plowed under. Now, less than 1 percent remains, leaving plants, birds, animals and invertebrates vulnerable.

Iconic natives such as Willamette daisy (*Erigeron decumbens*), Nelson's checkermallow (*Sidalcea nelsoniana*), Bradshaw's lomatium (*Lomatium bradshawii*), Willamette larkspur (*Delphinium oregonum*), Kincaid's lupine (*Lupinus sulphureus* ssp. *kincaidii*) and golden paintbrush (*Castilleja levisecta*) are either threatened or endangered.

"You don't have to have a big imagination to know that in a genera-



Echinacea 'Cheyenne Spirit' produces a mix of flower colors from purple, pink, red and orange tones to lighter yellows and creams. PHOTO COURTESY OF MONROVIA



Combining Technology & Tradition Since 1976



Greenhouses



Our custom designed greenhouses maximize your production

Parts and Service Department



We're ready to tackle your most difficult repairs

Toilet Trailers



Capable of handling all of your sanitation needs

Call Us Today!

(877) 678-5525

Visit us online at gkmachine.com

PHONE: (877) 678-5525 | 10590 DONALD ROAD NE | PO BOX 427 | DONALD, OREGON 97020

tion or two, many more plants will be endangered,” Krautmann said. “Without nursery intervention to collect seed from a variety of sources and grow them out and provide them to people to do the restoration, they’ll go the way of the dodo bird.”

In 2005, Boyer and her crew set to work at a farm that Heritage owns in Jefferson, Oregon. Invasive species were dug, sprayed, burned and mowed. Dense stands of oak were thinned to allow the open space for natives to return and the larger oaks to spread their branches, which provide habitat for Western bluebirds, white-breasted nuthatches and other wildlife. More than 120 species of natives, collected and propagated by Boyer, were seeded or planted.

As the project progressed, it became clear to the Krautmanns that there was a niche in supplying seed to government agencies and nonprofits involved in preservation work. So they started a native seed division of the nursery. The division now sells 4,000 pounds of seed a year, accounting for 10 percent of business.

The need for seeds

Champoeg Nursery, which opened in 2002, found the same opportunity. About 60 percent of its sales of native plants come from contracts with government agencies responsible for mitigation and restoration projects, such as parks departments and conservation and watershed districts.

“We did our research and agency contracts is where the demand was and still is,” Paul Stormo, general manager of Champoeg, said. “There are big opportunities there and it’s growing.”

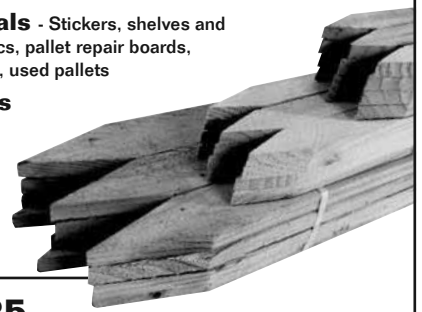
Metro regional government, which has a role in maintaining and restoring lands in the three-county area around Portland, grows only a small fraction of the plants it needs for the approximately 500 acres of prairie restoration currently underway and purchases the rest.

“It’s a great chance for our two groups — restoration practitioners and the nursery industry — to work together,” Jonathan Soll, science and stewardship ▶

Premier Supplier of Nursery Products



- **Shipping Materials** - Stickers, shelves and pallets made to your specs, pallet repair boards, shipping gates, tilt sticks, used pallets
- **Packing Supplies** - Shrink wrap, banding
- **Planting Stakes** - Multiple sizes available
- **Treated Lumber** - Multiple sizes available



D-Stake Mill
A Universal Forest Products Company

503-434-5525

1726 SW Highway 18, McMinnville, OR 97218 • www.dstakemill.com

6152



MARION
AG. SERVICE I N C.

- **Custom Blending**
- **Dry Fertilizers**
- **Liquid Fertilizers**
- **Organic Amendments**
- **Fertilization Programs**
- **Pest Management**
- **Testing & Analysis**
- **Equipment Painting**
- **Seed Cleaning**
- **Sand Blasting**
- **Animal Feed**
- **Lime and Dolomite Application**

Our team has the knowledge and experience to assist you in making sound decisions.

Farm Store

20160 Main Street, St. Paul, Oregon
503-633-4281 • 1-888-814-5727
Home of the St. Paul Rodeo

Main Office

7746 St. Paul HWY, St. Paul, Oregon
503-678-5932 • 1-800-648-2718
www.marionag.com



Marion Ag Service is proud to partner with Harrell's, LLC to bring you Polyon™ controlled release fertilizer

KEEP CALM AND STAY GREEN

▲ REPAIRING THE PRAIRIE

division manager for Metro, said. “The number of acres that’s gone into restoration has increased. We need the seeds.”

Boyer, who knew where to collect source-specific seed for propagation, agrees. “The nursery industry is a valuable — in fact, vital — resource for restoration professionals needing to restore land on a meaningful scale,” she said. “Nurseries have the facilities and expertise to produce high-quality material at a cost-effective scale.”

At the farm in Jefferson, Boyer leads twice-yearly tours to bring together professionals, landowners and preservation experts. The events are opportunities to share information and to inspire other owners to start their own restoration efforts. Most of the Willamette Valley’s oak savanna is scattered, the majority in private hands.

“We need to connect these frag- ▶



The blue flowers of *Camassia quamash* appear in late spring to early summer. The bulbs, which were a staple food of North American Indians, can be harvested at any time of the year, but are probably at their best in early summer. PHOTO COURTESY OF THE NORTHWEST FORAGER

Your Container Supplier Specialist!

www.trlcompany.com



If you have a nursery or greenhouse, look no further than T&R! We have it all!

TEKU® Greenhouse containers, baskets and trays

Nursery Supplies Outdoor nursery containers

Dongjin Propagation trays

Summit Plastic Company Fill trays, handlers, inserts and flats, eco friendly products

JānorPot Horticultural containers

Let our knowledgeable staff help you find just the right solution for your container needs. Count on T&R for quality products, timely deliveries and expert assistance.

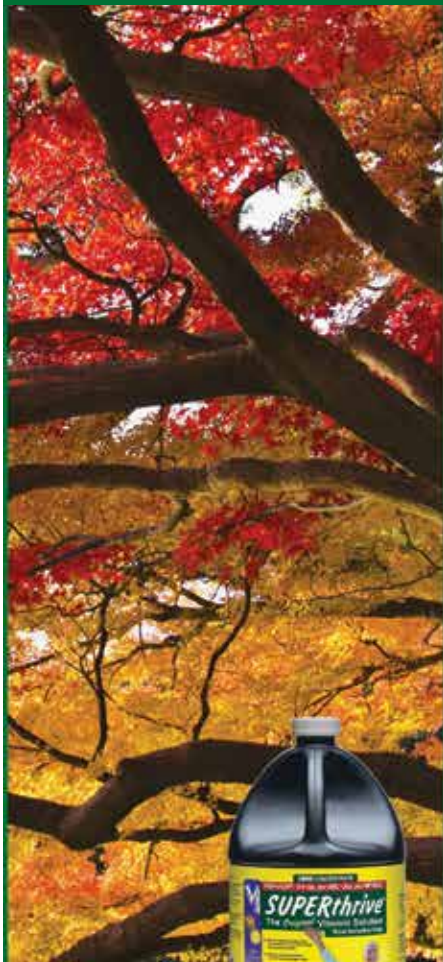
Call our grower supplier specialist
Courtney Lewis-Borts at 503-951-3929
Email: Courtney.lewis@trlcompany.com

Northwest Facility – Toll Free: 888-981-1727
2830 Progress Way, Woodburn, Oregon 97071



The seed heads (or florets) of *Eragrostis spectabilis* (purple lovegrass) bloom mid-summer in shades of light purple, giving an overall purple haze to the landscape.
PHOTO COURTESY OF BLUE HERON LANDSCAPE DESIGN

**SUPERthrive® ~ Always ahead
in science and value.**



SUPERthrive®

Maximize potential by quickly building a strong root base. Perfect for landscaping, and transplanting trees of all sizes.

Our timeless formula is enhanced with help to integrate contemporary research with the existing nutrition that **SUPERthrive®** has provided since 1940.

SUPERthrive® is highly concentrated, making it economical and easy to use. Only 1/4 tsp. per one gallon of water or 3 oz. per 100 gallons. For transplanting, 1 tsp. per gallon of water.

SUPERthrive®

**Enter our Sept./Oct.
photo contest.**



Vitamin Institute ~ www.SUPERthrive.com

▲ REPAIRING THE PRAIRIE

mented habitats,” Krautmann said. “If we think that government and nonprofits can do the job all on their own, it’s a delusion. We need to empower people who own pieces of the oak prairies to do something rather than just read about it or go to a seminar.”

Soll echoed Krautmann: “It’s very important to make the effort before it’s

too late,” he said. “We still have the chance to protect and restore a functioning ecosystem. If we wait a couple more decades, we’ll be protecting a few museum pieces, and that would be a shame.”

Pollinating the prairie

One doesn’t need acreage to help bring about a return of prairie environ-



Salvia nemorosa 'Caradonna' is an erect, clump-forming perennial noted for its dark purple stems and blue-violet flowers, which attract bees and butterflies. PHOTO COURTESY OF MONROVIA

ments. Even in small spaces, gardeners can plant their own piece of prairie. Boyer knows of a couple near the nursery with a flower bed around a flagpole seeded to wildflowers and grasses — one of four mixtures Heritage supplies to Pro Time Lawn Seed in Portland.

“Is it going to attract imperiled meadowlarks?” she said. “No, but boy, the pollinators love it.”

Pollinators are just one reason clients ask landscape designer Bob Hyland, owner of Contained Exuberance pottery shop in Portland, to create what he calls “prairie-esque” gardens in larger spaces with prairie-adapted plants.

“There is mounting interest in wild-life value, and prairies teem with birds and pollinators,” he said. “But they’re also about movement and motion.”

Hyland gets that motion from grasses like cool-season *Deschampsia cespitosa* with its neat clumps of dark green leaves and airy masses of buff-colored inflorescences, or low-mounding, purple-flowering *Eragrostis spectabilis*.

His must-have perennial is *Amsonia hubrichtii*, which has 2 feet of feathery foliage and bursts of blue flower clusters. But most *Amsonia* will do, including ‘Blue Ice’, *A. tabernaemontana* and *A. cilata* ‘Halfway to Arkansas’. A favorite of butterflies, magenta-flowered *Vernonia* ‘Iron Butterfly’ and violet-spiked *Salvia nemorosa* ‘Caradonna’ are on the top of his list, too.

“I plant a matrix of grasses and perennials,” he said. “I want something light, airy, ethereal and moody.”

Most of the plants Champoeg sells through contracts do well in home gardens, too. Stormo recommends camas (*Camassia quamash* and *C. leichtlinii*) for the towers of sky-blue flowers, but also for its cultural significance as a primary food source for early Native Americans in the West. For wildlife, he stresses the importance of native milkweed (*Asclepias speciosa*) for threatened monarch butterflies.

Andrej Suske, general manager of T&L Nursery in Redmond, Washington, suggests any of the *Echinacea*, but ▶



6494 Windsor Island Rd N

Keizer, Oregon 97303

Strawberries
Raspberries
Blackberries
Grape Vines

503-393-8112
Fax: 503-393-2241
www.weeksberry.com
plants@weeksberry.com

Blueberries
Asparagus Roots
Rhubarb Roots
And Much More!



SMALL FRUIT SPECIALIST
The Very Finest Quality!

Call or Write Today!



REXIUS

ASK ABOUT OUR
CUSTOM SOIL BLENDS!

1275 Bailey Hill Road
Eugene, OR 97402
Office: 541.342.1835
Fax: 541.343.4802

BARK
BARK FOR CONTAINER MIXES
Various Sizes Available

Sustainable Solutions
Landscape Community Environment

Contact Rex for pricing at 541.335.8017
www.rexius.com



F & L Lumber, Inc.

Specializing in Nursery Lumber Needs!

- **Tilt Sticks**
1X1-8' or cut to your length
2X2-8' or cut to your length
1X2-8' or cut to your length
- **Container/B&B Pallets**
- **Gates/Gate Boards**
1X4-8' or cut to your length
- **Tree Stakes**
- **Plant Boxes**
- **Shipping Racks**

Call Michelle

Phone: 503.803.1175

Fax: 503.212.0160

E-mail: FLLUMBER@AOL.COM



Where Great Customer Service is a Given!

We Accept Visa & MasterCard

particularly the hybrid 'Cheyenne Spirit', which shows up in a surprising array of orange, red, purple, yellow and white.

"It's a rainbow of color," Suske said. "If planted in mass, you'd get a stunning effect. If I were to do it in my garden, I'd use a whole bunch of those and some *Panicum*. You'd get a real cool effect out of that."

If you're going to use seed to start a prairie garden, be patient, Boyer said. Clean the area of weeds, wait a year and clean it again.

"Seed needs dirt, but the weed seed bank is ginormous," she said. "So you need to clear it as good as you can or you'll be disappointed."

Boyer learned from experience. At Jefferson Farm, invasive species, which are tough competitors, are always waiting in the wings.

"The issue with restoring to open

prairie savanna is that it is a created habitat," Boyer said. "It was a managed ecosystem for 5,000 years. You can't just plant it and walk away."

It takes dedication, but Krautmann is convinced landowners want to do the right thing, not just for ecosystem preservation, but also to keep their lands clear, slow down soil erosion, enhance pollinator and wildlife habitat, and give their families and friends a place for relaxation and recreation.

And, he added, there is help available. His project was partially facilitated by volunteers from nonprofit organizations and grants from state and federal agencies that Boyer helped identify.

There's also a wealth of information on the Heritage website, including instructions on site preparation, creating habitat and weed-control methods.

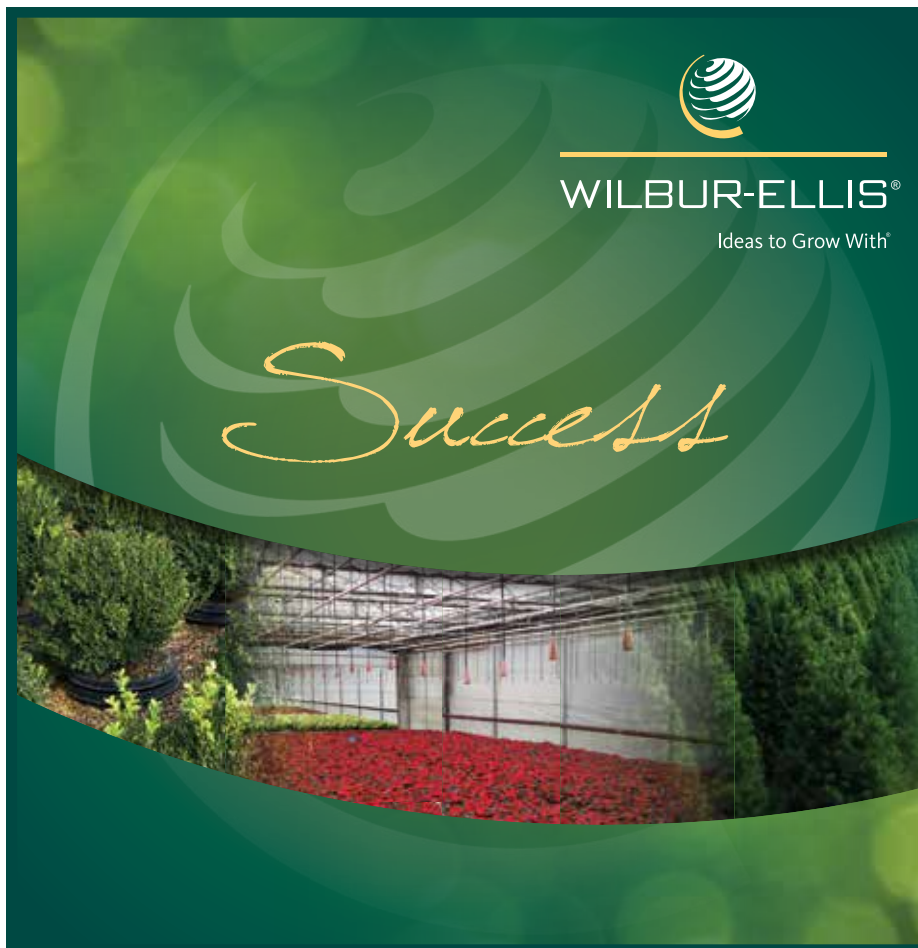
"Just ask yourself, 'How much can I


bite off?'" Boyer said. "How many acres can I touch, fix to the best of my ability and maintain? That's what everyone has to figure out."

There are many reasons to restore the prairie habitat — ecological, legal, historical, ethical — but perhaps more fundamentally, they're beautiful.

"When people have the opportunity to walk through a Willamette Valley prairie, they are amazed," Soll said. "You think of Oregon and you think of Douglas fir forest, and I love that. But there's something about oaks and the grass moving and grassland birds chirping and wildflowers blooming that moves me, and I know it does other people, too." ©

Kym Pokorny is a freelance writer specializing in gardening and the nursery industry. She can be reached at madrona29@yahoo.com.




WILBUR-ELLIS®
Ideas to Grow With®

Success

Wilbur-Ellis – here to help with all of your ornamental crop needs from start to finish:

- Integrated Pest Management
- Biological Control Agents
- Plant Protection Products
- Controlled Release, Liquid and Field Fertilizers

Woodburn, OR | Nursery Team

Ken Doubrava | 503-866-6116
Janet Poncelet | 503-989-2376
Scott Renfro | 206-617-3950
Jim McKay | 503-710-1777



pro.wilburellis.com

For information only. Not a label. Prior to use, always read and follow the product label directions. WILBUR-ELLIS logo, Ideas to Grow With, LINK and WIL-GRO are registered trademarks of Wilbur-Ellis Company. K-0815-367