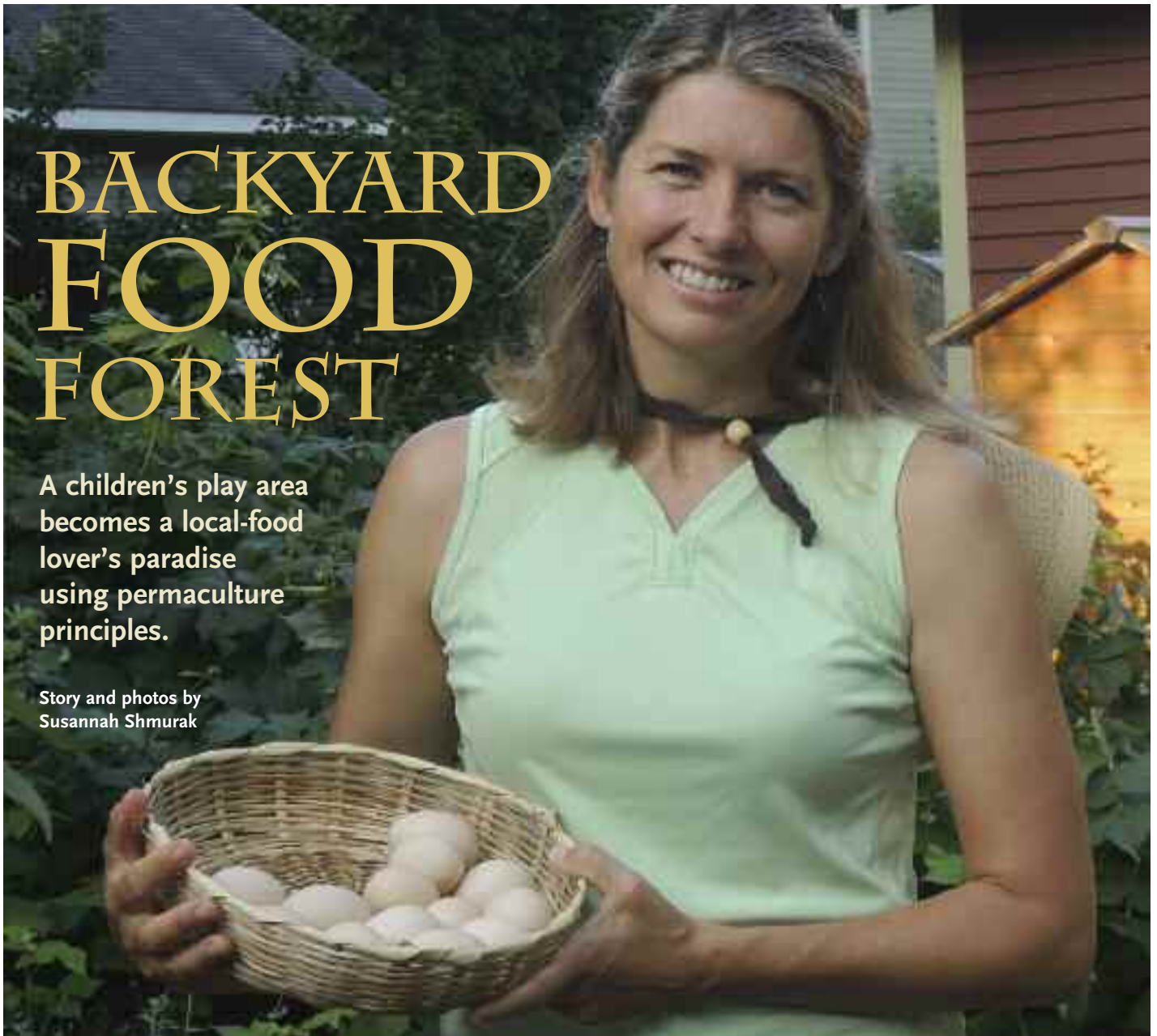


# BACKYARD FOOD FOREST

A children's play area becomes a local-food lover's paradise using permaculture principles.

Story and photos by  
Susannah Shmurak



A desire to grow more edibles and keep chickens prompted Kelly Scheuerman to redesign her yard using permaculture principles.

**W**hen Kelly Scheuerman's children, Sofie and Zac (now 18 and 16), finally outgrew their play structure, Kelly jumped at the chance to reclaim the large space at the rear of her family's corner lot in Northfield. Kelly had been yearning to raise chickens for some time, and her interest in adding more edibles to her landscape had been piqued by workshops on permaculture she had attended. Short for permanent agriculture, permaculture is a method of garden design that emphasizes perennial fruits and vegetables, and Kelly saw it as a way to reconceive her yard using plants that would be more than ornamental.

Already an avid vegetable and flower gardener and passionate about local food, Kelly wanted to maximize food production on her property. "There was a whole lot more I could be doing with the space that I had. I wanted to grow more food beyond just annual vegetables," Kelly explains. She envisioned a mini-orchard

inter-planted with berries and flowers, what many permaculturists would call a small-scale "food forest."

## Permaculture Redesign

Kelly contacted Paula Westmoreland, owner of Ecological Gardens in Minneapolis, to help her create the edible yard she desired. Westmoreland's permaculture designs aim to "integrate form, function and beauty," and to connect people with nature and the food they eat. Westmoreland has installed hundreds of permaculture gardens over the last decade, in rural, urban and suburban settings.

After a site visit and discussion with Kelly about her goals for the space, Westmoreland created a design incorporating more than 50 kinds of plants as well as the longed-for chicken coop and a stone patio where the family could gather and entertain in their beautiful and productive garden. Kelly and her husband, Mike,

## Backyard Food Forest



PHOTO COURTESY OF KELLY SCHEUERMAN

Kelly keeps three hens for eggs and the fertilizer they supply.



“FOOD  
CAN BE  
BEAUTIFUL.”

also wanted solar electricity for their house, and the solar array became part of their garden redesign. Solar panels top a pergola on the back of their house, which provides a shady spot to enjoy the view of Kelly’s raised-bed vegetable garden as well as a place to hang laundry. These resource-conserving panels serve the additional function of shading the family’s air-conditioning unit from the heat of the summer sun, helping it to run more efficiently.

### Readying the Soil

Westmoreland emphasized the importance of carefully preparing the site and restoring soil health. The kids’ play structure and long-term wood storage had left Kelly’s soil badly compacted. The first steps in the process of transforming the space were pulling and smothering weeds, laying down a thick layer of soil and mulch, adding compost tea and watering slowly to break up the soil and reinvigorate its biota. The site sat empty for more than nine months as microbes did their important work of readying the ground for planting. While Kelly waited, her three chickens—a Bantam called Togo, and Wyandottes Checkerbella and Susie—took up residence and started producing their potent manure for Kelly’s compost. Some months later, they also started laying eggs, which the family enjoys scrambled and in omelets made with garden vegetables.

When it came time to plant the following spring, Kelly, Westmoreland, and two assistants worked two full days planting seven dwarf fruit trees, 31 fruiting vines and shrubs, an asparagus patch, and more than 100 flowers and herbs in the 40-by-70-foot space. Kelly helped select the varieties of pear (‘Parker’), apple (‘Honeycrisp’ and Frostbite™), peach (‘Reliance’), cherry (‘North Star’), grape (‘Bluebell’, ‘Edelweiss’,

PHOTO COURTESY OF WALTERS GARDENS



Above: *Gaillardia* helps attract pollinators to Kelly’s garden. Right: A stone path makes it easy for Kelly to reach plants without disturbing the soil.

# GETTING STARTED

Want to try applying some permaculture methods in your own garden? Here are some places to start:

- **Consider different layers.** Can you under-plant a tree with a fruiting shrub or vine and native flowers and groundcovers to take better advantage of sunlight and water cycling?
- **Try using edibles when you're adding or replacing plants.** Serviceberries in tree or shrub form do well even with partial shade and provide plentiful fruit for people and birds. Rhubarb is an attractive foliage plant, and grapevines can do double duty providing both fruit and shade. Thyme and wild ginger work well as groundcovers and reduce the need for mulch.
- **Add native flowers to attract pollinators and support wildlife.** —S.S.



Many permaculturists add a layer of berries.

'Frontenac' and 'Marquette'), clove currant, gooseberry ('Pixie'), raspberry ('Autumn Britten') and alpine strawberry.

Each fruit tree is surrounded by what permaculturists call a "guild," a plant community created so plants benefit one another. Wild indigo fixes nitrogen while *Gaillardia* and *Echinacea* attract pollinators. Trees serve as supports for grapevines, and groundcovers protect the soil. The diversity of plants helps to provide habitat for different types of wildlife.

Key permaculture principles Westmoreland applied when designing the garden include taking advantage of several different layers—tall tree, low tree, shrub, herb and root—which helps cycle water efficiently and allows the garden to capture and make maximum use of the available sunlight. The topography of the installation encourages water to infiltrate, using organic patterns and berms to slow runoff. The design also promotes interaction with nature by drawing Kelly and her family into the garden to harvest edibles and cut flowers. An inviting patio with a grill and fire pit surrounded by cranesbills, coneflowers and other attractive plants also gives the family a pleasant place to eat outdoors and spend time together in the evenings.

One of the many attractions of permaculture is the promise of perennial food production with less work than traditional annual vegetable cultivation requires. Once established, the

trees and perennial flowers, fruits and herbs will yield for years with relatively little work as compared to typical row vegetable gardening. The arrangement of plants in mutually beneficial guilds helps to reduce pests and weeds while minimizing the need to water and fertilize.

## Bearing Fruit

In summer and fall, Kelly's garden bursts with numerous kinds of fruits to enjoy. Two pear trees, two apples, a peach, a cherry and a serviceberry anchor the design, and groupings of currants, rhubarb, gooseberries, alpine strawberries and raspberries are inter-planted with indigo, white and purple coneflowers, liatris, cranesbill, coreopsis, wild ginger, catmint and thyme. Grapevines climb the sturdier apple and pear trees, and Kelly built a trellis to support five arctic kiwi vines. An herb spiral includes perennial chives and oregano, to which Kelly adds annual basil, dill and rosemary. A stand of asparagus will provide the family with delicious stalks to harvest in spring for years to come.

One area was left open for Kelly as an experimental patch. She pictures herself one day harvesting grains there and making a single batch of pancakes, with her own flour and eggs from her chickens. For now, Kelly uses the extra space for watermelon and squash vines.



Left: Raised beds, stone paths and the chicken coop add structure to the garden. Above: 'Parker' pears are a highlight of Kelly's fruit orchard.

## Backyard Food Forest




Herbs are used as groundcovers to reduce the need for mulch. *Inset:* Statuary adds beauty and interest to the space.

In follow-up consultations, Westmoreland and the homeowner evaluate how the garden fared. Westmoreland explains why some plants seemed to perform better than others and suggests what to replant and what to replace with something else. She gives tips on maintenance and pruning. Many of her clients plan multi-staged installations, and they use what they learn from one permaculture planting as they develop other parts of their yards or farms.

On a follow-up visit a year after planting Kelly's garden, Westmoreland explains, "Our goal really is to bring an ecosystem to life," which she does in part by encouraging diversity and soil health. When, as happened this year after a dry fall and particularly long winter, some plants succumb to the extended cold and others to hungry rodents, other varieties survive. While Kelly lost many *Echinacea* and *Gaillardia*, her apples, pears, grapes, rhubarb and indigo are thriving.

### 'Showing What's Possible'

Looking out over her garden with its long-awaited green shoots and flowering fruit trees in late May, Kelly remarks, "I think that food can be beautiful." Numerous visitors and passersby have thought so, too, and have stopped to ask Kelly about her garden. Some have followed suit, planting more perennial fruits and herbs; one family even commissioned their own permaculture design. Kelly's permaculture installation visibly manifests her passion for growing food wherever one can, even on a fraction of a standard city lot.

"It's not only just about trying to produce more food for my family," she says, "It's ... about showing what's possible." 

*Susannah Shmurak is a Northfield-based writer.*

### Resources

To learn more about permaculture, check out workshops offered by the Minneapolis-based Permaculture Research Institute Cold Climate ([www.pricoldclimate.org](http://www.pricoldclimate.org)).

*Gaia's Garden: A Guide to Home-Scale Permaculture* by Toby Hemenway (Chelsea Green, 2009) and *The Vegetable Gardener's Guide to Permaculture* by Christopher Shein (Timber Press, 2013) are good introductions to the topic.

—S.S.



Kelly planted many pollinator-friendly plants, such as these cone flowers.