

As hobby farmers, we have the ability to grow almost everything we eat.

Why, then, are grains so overlooked?

BY CHARLES CAPALDI



the staff of life

WHEN YOU DECIDE TO FARM, YOU CONNECT TO AN AGRARIAN LIFESTYLE

dating back to the dawn of civilization. We cultivate vegetables out of the garden, gather fruit from the orchard and eat steaks from our own back 40 ... yet somehow, bread and the small grains that comprise it never seem to make the team. I'm not talking about planting your garden with a weed-smothering crop of buckwheat, but rather with wheat, rye and oats grown in a garden plot to turn into wholesome, home-baked loaves of bread.

Cultivating Your Own Grains

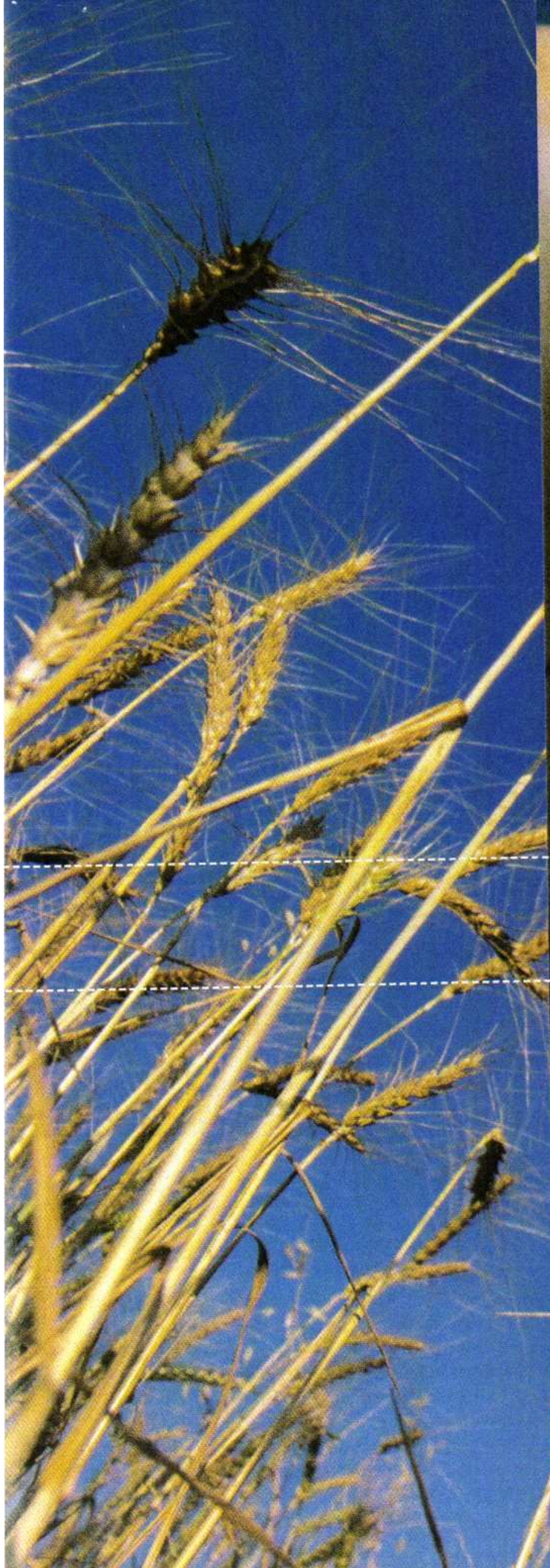
From Victorian milk bread to the ubiquitous crusty French baguette, different varieties of bread have evolved to meet the needs (and taste buds) of the cultures from which they sprang; an evolution inspired by locally available small grains. Just like home-grown tomatoes, homegrown grain is tastier, healthier and more satisfying than anything you could buy at the supermarket.

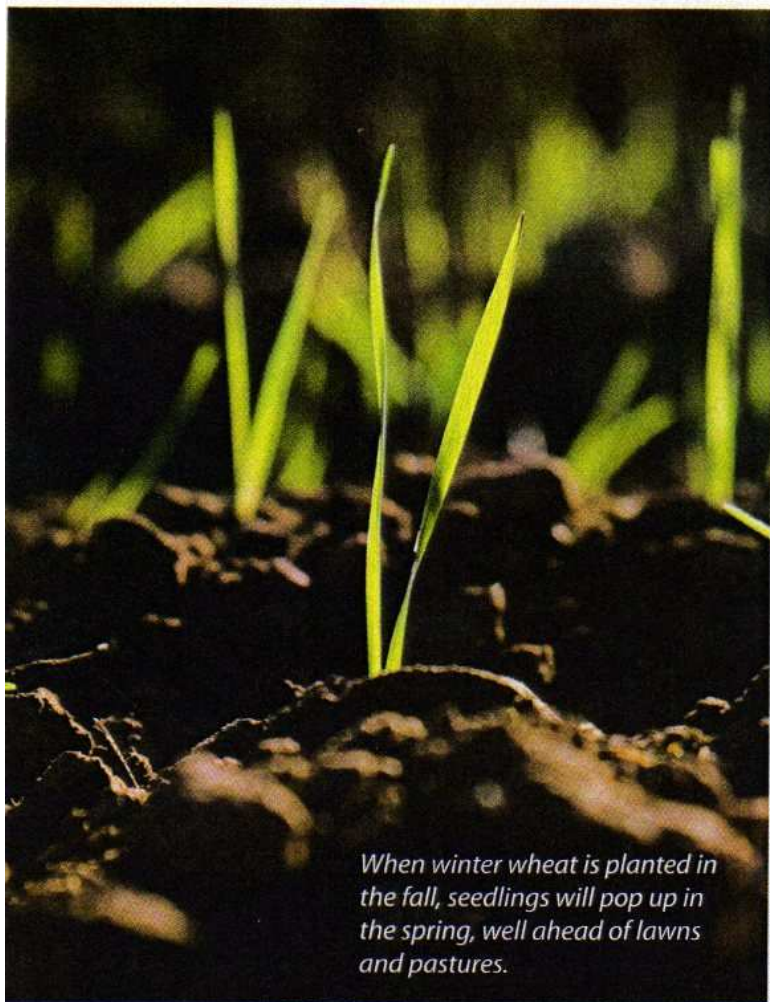
To the uninitiated, grain farming conjures up images of blowing fields of wheat. But for those of us with little space, small grains can be cultivated easily right in the vegetable garden. If you're used to harvesting dozens of tomatoes, the two pounds of wheat produced by the same 20' x 2' garden row will seem, well, light. The nutritional reality is anything but.

One cup of tomatoes provides 50 calories compared to the 400 calories in a cup of whole wheat. While the economics of small-grain production are dubious at best, the satisfaction and nutritional advantages of eating bread made from your own home-grown grains are priceless.

Wheat, barley, oats and rye should be planted in ground that has been cultivated for at least a year. Since we cultivate and mulch our vegetable crops all season long, those same garden areas provide an optimum weed-free zone. Not wanting to sacrifice any vegetable crops, I wait until late summer when growth slows, then till up a new plot of ground to kill the sod. I plant vegetables in this new plot the following spring, liberating space in the old garden for small grains.

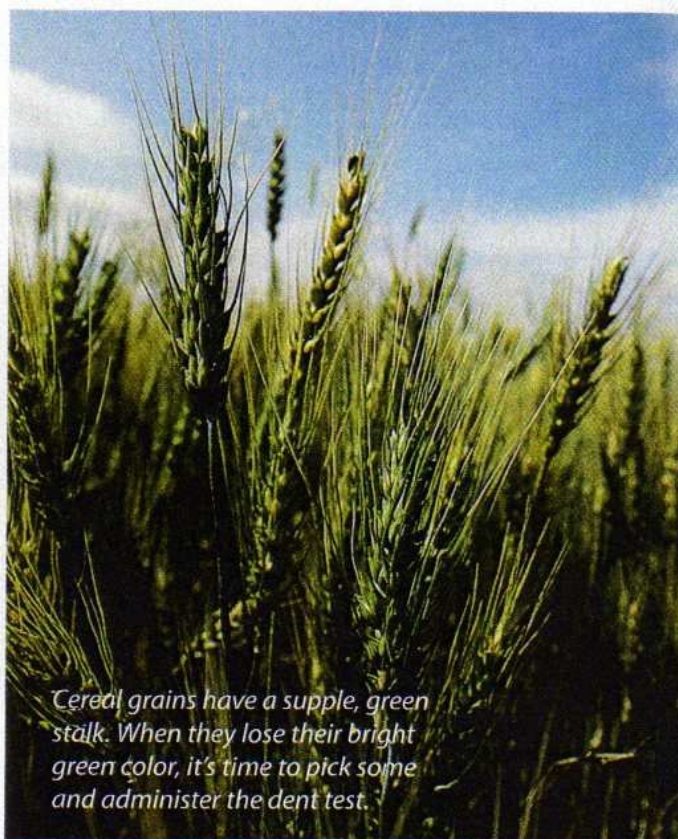
While full sun is a prerequisite for maximum yields, cereal





When winter wheat is planted in the fall, seedlings will pop up in the spring, well ahead of lawns and pastures.

RUSSELL A. GRAVES



Cereal grains have a supple, green stalk. When they lose their bright green color, it's time to pick some and administer the dent test.

DIANE LACKIE

grains tolerate poor soils, low moisture and cool temperatures. As you till the land, work in as much compost as you can spare and lime if necessary. Tilling just before planting guarantees a fluffy seedbed in which to broadcast your seeds.

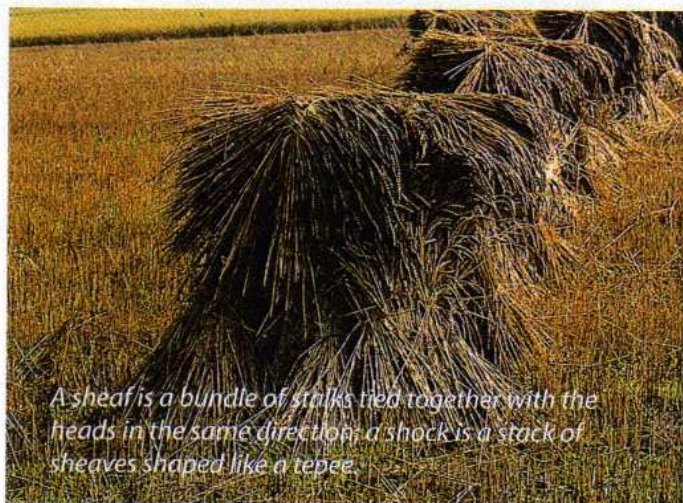
Commercial grain farmers plant their seed with a grain drill, but hand sowing is preferred in a small space. With a canvas bag slung over your shoulder, broadcast the seed in a wide swath over the entire growing area. Rake it into the seedbed about 1½ inches deep and tamp it down with the back of a rake.

My grain plots are 30' x 30' squares, which, when planted with winter wheat in the fall, put down roots before the New England winter blankets us in heavy snow. They green up in the spring, well ahead of lawn and pastures. Since the grain is chock-full of nutrients, it quickly shoots toward the sky, out-competing most annual weeds.

A typical 1,000-square-foot plot yields 50 pounds of whole

SEED, WHOLE GRAIN & FLOUR

Seeds of Change
www.seedsofchange.com
Johnny's Selected Seeds
www.johnnyseeds.com
King Arthur Flour
www.kingarthurfLOUR.com

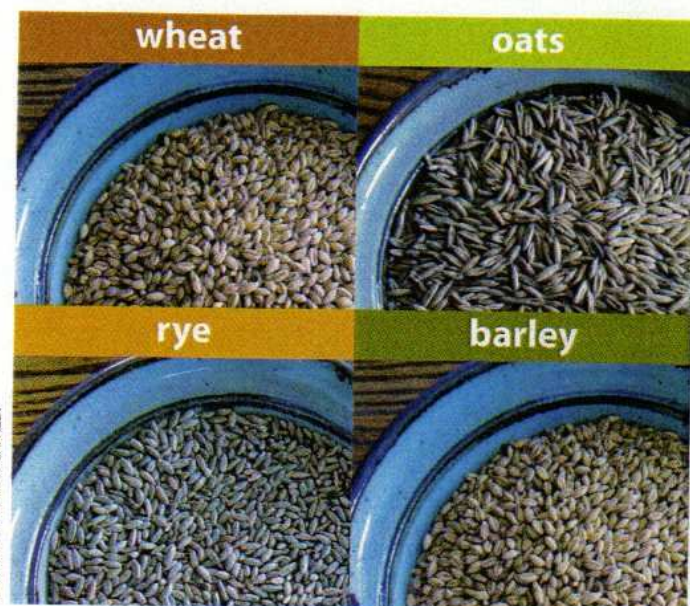


A sheaf is a bundle of stalks tied together with the heads in the same direction; a shock is a stack of sheaves shaped like a tepee.

wheat the following May (south) or July (north) depending on variety, rainfall and temperature. I favor red hard wheat, winter rye and hullless oats. Although they aren't technically small grains, I also plant a patch of parch or blue corn, both of which make excellent cornmeal.

Harvesting Your Own Crop

Whatever grain you decide to grow, the trick is to know when to harvest it so you can get it out of the garden and into your larder. Cereal grains have a supple, green stalk. When they lose their bright green color, it's time to pick some and administer the "dent test." Bite down on a single grain. If it is ready for harvest, you'll be able to dent it, but not bite easily through it. If it passes the "dent test," it's time to get out your harvest tools. Ideally,

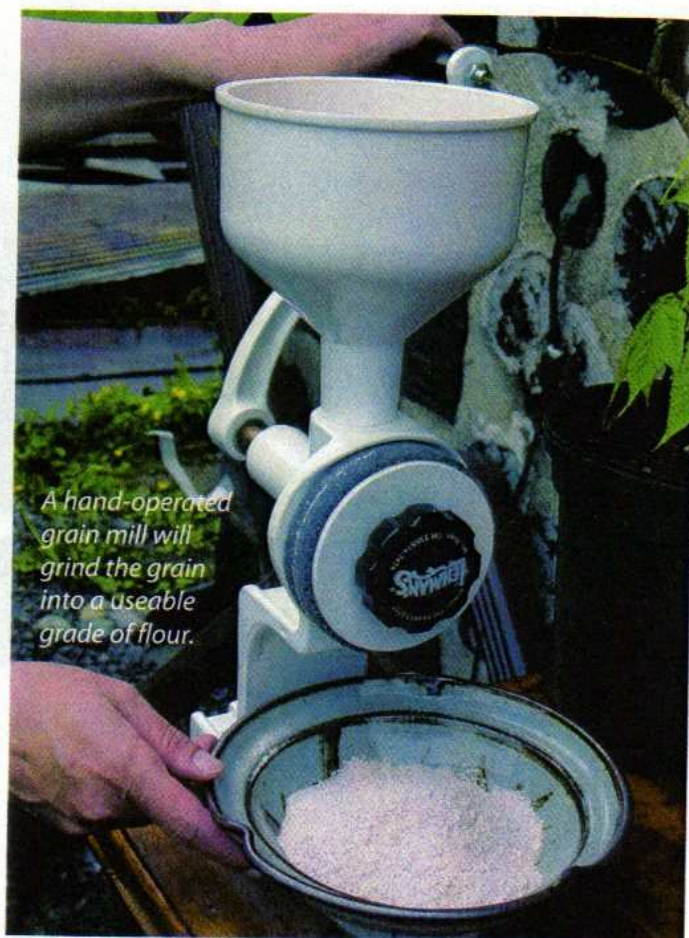


you'll harvest the grain while it is still somewhat green. If the heads are overly dry, they'll drop their grain onto the ground.

A sicklebar mower is the tool of choice for small-grain harvesting, but I prefer to use a scythe—a two-handed knife mounted on a long handle (called a “snath”). With a bit of practice, you'll be swinging it in large arcs parallel to the ground, cutting the stalks at their base and laying them down flat in a neat pile. A good, old-fashioned machete works just as well.

Gather up a neat bundle of stalks with the heads facing in the same direction (this is a “sheaf” of grain) and tie them together near the top with a piece of stem. Stick three or more sheaves into the crop stubble, grain toward the sky, and carefully start stacking additional sheaves around them, like a tepee; this is called a shock. When the shock is large enough to wrap your arms around, bind them together and start a new one. At this point, you can bring them inside to continue drying—either hung upside down from the rafters or shocked on the barn floor.

For a really small quantity of grain, snip off the heads and col-



A hand-operated grain mill will grind the grain into a useable grade of flour.

SEED VARIETIES AND BROADCASTING RATES

WHEAT (*TRITICUM AESTIVUM*) Soft wheat, typically considered a southern crop, produces an excellent pastry flour for cakes, biscuits and cookies. Hard red wheat is the best bet for bread flour and flourishes in cooler climates. Both can be planted as winter wheat in September and harvested from May (south) to July (north). Sow at a rate of 120 to 140 pounds per acre (or four to six pounds per 1,000-square feet).

HULLESS OATS (*AVENA NUDA*) Unlike wheat, oats are fast-growing; they are usually planted in the spring, but can be sown during the fall in the south. Oats are the only common cereal grain with an inedible hull that wraps around each individual grain. Select a variety that is naturally hullless. Sow at a rate of 100 to 150 pounds per acre (or 2½ to 3 pounds per 1,000-square feet).

WINTER RYE (*SECALE CEREALE*) A cold hardy and productive annual grass, winter rye is sown in the fall for a midsummer harvest. It germinates quickly and grows to a height of four to five feet. An added benefit is that its roots markedly improve soil structure. Peas or vetch will use the rye as a support. Sow at a rate of 80 to 150 pounds per acre (or 2 to 3½ pounds per 1,000-square feet).

lect them in a burlap bag. No matter how you harvest, the grain needs to be separated from the layer of bran and husk that protect it. On a small homestead, lay out the sheaves on a large tarp and pound them with a flail—a foot-long piece of wood attached to a handle by a leather thong. This is not an exact science. Banging the seed heads with a shovel works just as well. The stalks (technically “straw”) can be used for livestock bedding or mulch.

The grain is collected for winnowing, something best done on a windy day or in front of a fan. Put the grain and the loose hulls (or chaff) that surround it into a shallow basket. Flip the basket up so the grain is airborne, and catch it as it falls. The lighter chaff will be carried away by the breeze, leaving the winnowed grain behind.

The winnowed grain can be scooped into burlap bags. Be careful that it has dried down to 10 to 15 percent moisture before storing. Grain that isn't dry enough will mold. I bring a sample to the farmer's co-op where they test it with a moisture meter. If you can't get your grain tested, revert to the dent test. For long-term storage, opt for plastic bags in the freezer to keep grain free from mold, weevils and mice.

Baking Bread

So fittingly, my research on bread started in France, where bakers insist on one thing: Bread is only as good as the flour used to make it. I reasoned that my own small grains would yield a superior loaf of bread.

I use a hand-operated grain mill with two stone disks for grinding flour. My

children took turns on the crank, producing an increasingly finer grade of rye flour with each pass.

My previous bread “experiments” always hinged on a small packet of baker's yeast. If my bread didn't rise, I could always blame it on bad yeast. A sourdough starter in place of commercial yeast guarantees improved flavor, an open-holed crumb and a loaf of bread

with the staying power to sit for a week without going stale.

Starter can be purchased from baking supply companies or easily cultured at home (see *Breads From the La Brea Bakery* by Nancy Silverton). Naturally occurring wild yeasts are present in the air everywhere; after a few weeks in your home, the wild yeasts that keep your starter bubbling will be those that occur naturally in your

Say hello to one smart cutter. (Grass and light brush say goodbye.)

Rhino® 100 Series Mowers



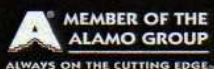
Introducing the 100 Series from Rhino.

www.servis-rhino.com

© 2006 Servis® and Rhino are registered trademarks of Alamo Group Inc.

Rhino

1020 S. Sangamon Ave.
Gibson City, IL 60936
Phone 1-877-408-3297
Fax 1-877-408-3298



Specially designed for utility mowing operations, Rhino's new 100 Series is well suited for small ranches, estates and farms. From the bottom up, this is one smartly designed cutter. Case in point, the underside of the deck is smooth so material won't build up, disrupt airflow or cause premature corrosion. Plus, the outside of the deck is domed front to rear and side to side so debris sheds like water off a duck's back. In addition, the deck and blade design allow for excellent cutting performance. And for added safety, the 100 Series features standard front and rear guarding. Best of all, attaching it to a tractor is a snap thanks to the sturdy quick hitch capabilities. All of which makes bidding a fond farewell to overgrown vegetation a breeze.

BREAD BOOKS

Breads from the La Brea Bakery by Nancy Silverton

Rustic European Breads From Your Bread Machine by Linda West Eckhardt & Diana Collingwood Butts

The Scythe Book by David Tresemer

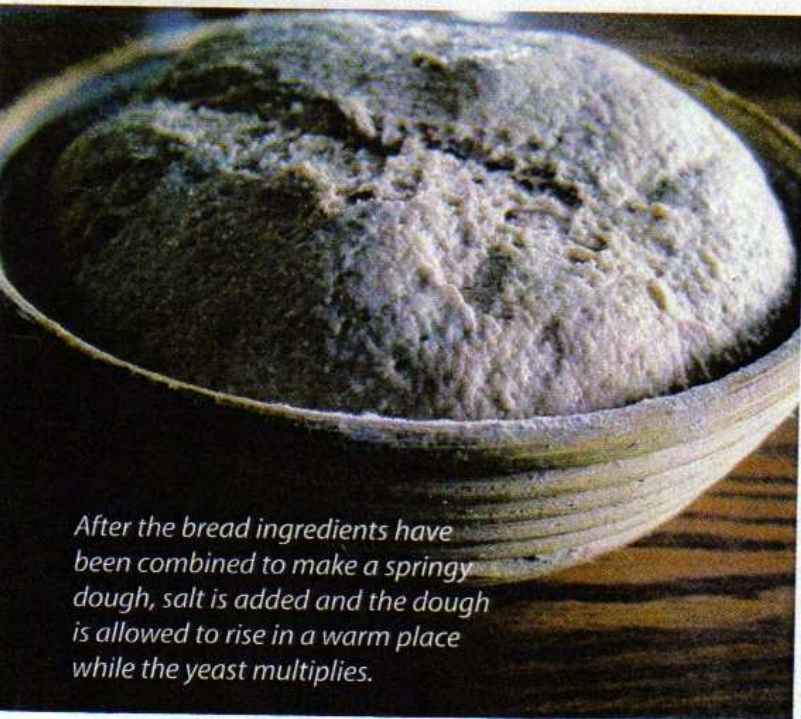
Small-Scale Grain Raising by Gene Logsdon



For small-grain harvesting, the author uses a scythe—a two-handed knife mounted on a long handle.



Winnowing separates the chaff from the grain.



After the bread ingredients have been combined to make a springy dough, salt is added and the dough is allowed to rise in a warm place while the yeast multiplies.

PHOTOS BY CHARLES CAPALDI

amount of salt is worked in. The dough is allowed to rise in a warm place while the yeast multiplies. This is where commercial yeast and sourdough techniques diverge.

The wild yeasts in sourdough act more slowly than commercial bread yeast. The slower the rise, the better the flavor of the resulting bread. After the first rise, the baker shapes the loaves and allows them to rise a second time in a cool place for eight to 24 hours. I shape mine and put them in cloth-lined baskets so they can rise overnight in the refrigerator (during the summer) or on a shelf in our mud room (during the winter). They come in, out of the cold, a few hours before I want to bake.

During the first eight to 10 minutes in the oven, the loaf expands. Left to its own devices, it would explode as moisture is vented. To prevent this, French bakers use a special knife (a lame) to make decorative slashes on the surface of the loaf which control and direct its expansion (I use a razor blade to slash half-moons and starbursts into my finished loaves). In a commercial oven with dozens of loaves, the relative humidity stays high. Since I can only squeeze two loaves at a time onto the baking tiles placed on my oven rack, I spritz the interior of the oven with hot water during the first few minutes of baking to ensure a chewy crust.

Sourdough crust is covered with a coat of small blisters that crackle as the bread cools—a sound that has my kids reaching for butter and jam every time they hear it.

Start out by replacing up to 50 percent of the flour in your favorite recipe with home-ground flour. You'll be pleasantly surprised by the results. The options are limited only by the cereal grains you use.

In the last 100 years, the crusty loaf of bread that historically served as plate, spoon and staff of life has been replaced by an enriched, white loaf that never goes bad in its sarcophagus of colorful plastic. As hobby farmers, we are in an ideal place to rediscover the lost art of baking artisan breads from the small grains we grow and grind ourselves. **hf**

Charles Capaldi, a writer and translator, grazes his sheep and bakes artisan bread loaves in a wood-fired, cob oven on the Quebec-Vermont border. His three children have stomachs full of crusty, whole-grained bread.

TOOLS & EQUIPMENT

Grain Mills

Lehman's Hardware
www.lehmans.com

Scythes

The Scythe Shop
www.scythesupply.com

environment. As long as you keep it well fed, your starter will last forever and you'll never run out. Sourdough and yeasted breads both start out the same way. Flour and water (along with yeast or starter) are combined to make a paste, which is carefully kneaded. After the ingredients have come together as a springy dough, a small