



'In 1868, Mr. Nelson sowed 11 lbs of wheat on one acre. He reports, 'The wheat grew luxuriantly and spread beyond anything I ever saw. I counted at least 40 stems each with good heads from one root.' Although the seeding was excessively light compared to typical rates of today, the yield was quite above average. This lighter seeding rate not only gave the greatest yield, but the finest quality. It was by far the heaviest in weight and had the least disease.' Maine Dept of Ag Report 1871



Awakening Wheat's Potential

Canaan Rouge 12" seedhead with fat high protein seeds. By increasing organic fertility and tillth, wheat roots develop more fully, enhancing nutrient uptake efficiency. Plants selected for robust height without lodging, & wide leaves have increased photosynthesis that imparts

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Grain Husbandry



enhancing
productivity, biodiversity
climate resilience & terroir

growseed.org

Grain Husbandry

increases the productivity and social value of landrace wheat by enhancing the ecological dynamics within the soil, plant and human systems. Our method adapt age-old traditions of husbandry and seed-saving to evolve resilient seed systems as we face climate change and globalization.



*Landrace wheat at 12" spacing produce
over 40 tillers per plant*

GROW - Global Restoration of Wheat

is our program to restore landrace wheat biodiversity for community seed systems - by growing-out genebank samples, selecting for deep roots, less lodging under heavy rain, greater tolerance to drought, wide dark green leaves, height for weed-competition, robust health, nutritional value, no gluten toxicity and delicious flavor.

Bread for Health - Modern wheat has increased in gluten toxicity. Landraces are better adapted to organic soil and have richer flavor.

Benefits of ecological wheat systems in comparison to conventional systems: reduction of agrochemicals that contribute to global warming, stable, competitive yields with richer flavor and good protein levels, greater resilience to climate change weather extremes.

Grain Husbandry practices include:

Soil

Living soil rich with compost and minerals, in a rotation of vegetables and cover crops, gives wheat the balanced soil it needs. A vital soil system nourishes larger roots. Deep rooted plants reach lower soil moisture, a critical mechanism to avoid heat stress, and stabilize the plant in heavy rain. Robust plants get less disease. We do not add extra fertilizers in spring of

Seed-Saving

Landraces are genetically diverse populations that evolved through natural and farmer selection over millennia to be well adapted to local regions. Seed-saving and adaptive selection has been the right and responsibility of farmers since the emergence of agriculture. Farmers are the original breeders, but this traditional knowledge needs to be renewed in developed countries.

Spacing - *Wheat's worst enemy is another wheat plant.*

Our goal is to awaken the full potential of the plant. Grow a biodiversity of landraces and mixtures at 12" space (5 lbs/acre), selecting the healthiest to save for seed. Plant 8" spacing (15 lbs/acre) for field production. Under-sow with clover or legumes. With wide spacing and good tillth, roots grow deeper than in conventional spacing, enabling the plant to better survive drought, heat and rain extremes of climate change.

Terroir

On-farm seed-saving evolves unique varieties for your farm and markets that celebrate 'terroir' - the history of the grain, taste-of-the-land, and farmer in their community. Seeds exchanges foster local seed systems.

GROW landrace wheat.

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