SPOTLIGHT - Learning from early market development of Kernza® Perennial Grain

Kernza® perennial grain is the registered trade name of the grain from a grain-producing intermediate wheatgrass (*Thinopyrum intermedium*) registered by The Land Institute. This cousin of annual wheat has been grown throughout the U.S. to provide fodder for livestock and nesting cover for certain bird species, as well as to stabilize the soil for erosion control. Now, it's being domesticated as a grain for human food.

Credit: Mette Nielsen

Intermediate wheatgrass can be grown as a "multi-functional" crop, yielding various commodities as well as ecosystem services. Kernza grain is a wheat-like perennial grain that can be used as an inclusion in foods like baked goods and beer or can be used as a whole grain like barley or rice. This is a new, quickly evolving crop. As of spring 2021, there are currently 42 Kernza growers and 3500 acres in the U.S. with research ongoing in 11 other countries.[1]

The market right now for Kernza can be characterized as new, small, and growing. The 2020 crop is being marketed presently and it is expected to be sold into the seed and grain market at solid profits, especially given the potential of intermediate wheatgrass/ Kernza as a dual-use crop for grain and forage. Supply chain models and grower experience suggests that ½ to ⅔ of production costs can be recouped on forage alone. In 2021, the total grain supply is expected to grow three to five fold to about 300,000-500,000 lbs total in Minnesota and the Upper Midwest. Production can scale up from there based on market demand.[2]

In the Upper Midwest, all prospective growers without a marketing plan are introduced to Perennial Promise Growers Cooperative (PPGC), an emerging coop of Kernza growers forming to support mutual success with Kernza on farm and in the market. Growers are not obligated to join PPGC, and PPGC is not obligated to accept new growers. It is up to all of them to decide whether to collaborate. Staff at The Land Institute and the University of Minnesota strongly prefer growers with a clear marketing plan, prospective buyer, or experience marketing differentiated grain crops so they are not left out on a limb come harvest. In other areas of the country, groups like Sustain-a-Grain are emerging to deliver a high-quality supply coming out of Kansas and the Great Plains.

In 2020, an award-winning public benefit corporation (B-corp) start-up, Perennial Pantry, formed around buying, processing, and marketing Kernza grain and flour direct-to-consumers, wholesale, and is now on Minnesota grocery cooperative store shelves. In 2020, in the midst of the pandemic, they sold Kernza to thousands of customers in 46 U.S. states. Kernza beer is on tap and on menus at several breweries and restaurants. It is being prototyped in products by dozens of bakers, restaurants, millers, and food companies. Every major maltster in Minnesota is testing Kernza presently. Smaller, high-profile food companies like Patagonia Provisions are marketing Kernza products, as are household-name Consumer Packaged Goods (CPG) companies like General Mills. Major CPG ingredient supplier Healthy Food Ingredients has a dedicated Kernza line in Valley City, North Dakota and is actively processing and acquiring Kernza as needed. For experienced seed growers, high-quality Kernza seed (+85% germination) will be in demand and is a niche market opportunity. European and Canadian partners are eager to grow, test, and market Kernza. Like any market, all of these buyers are cost-conscious to some degree. So, it is up to Kernza growers and buyers in the marketplace to determine what they believe to be mutually acceptable fair pricing. The University of Minnesota (UMN) has developed transparent pricing tools to help all actors understand the costs involved.

The challenge is to produce a high-quality supply that meets, but does not exceed, demand. The Kernza growers will need support through locally-accessible technical assistance (TA), supportive policy mechanisms, and market access. The best thing states new to Kernza can do right now is 1) identify well-positioned early-adopter growers to pilot commercial Kernza production (20 acre minimum) and 2) begin developing capacity (i.e. staffing, policy, markets, etc.) to support success for those growers.

Kernza has been developed as a new crop with the spirit of ushering in an entirely new paradigm for agriculture - crops that provide not only staple food for human consumption but also environmental benefits.

New perennial crops need this type of new thinking on markets, supportive policy, circular economics, investment and ownership. Who will own, control, and benefit from Kernza and future new perennial crops? A team of sustainability transition "intermediaries" from The Land Institute and the University of Minnesota (Forever Green Initiative, Green Lands Blue Waters, and others) have facilitated the work described above in recent years and are now embarking on developing a commons-based framework for Kernza growers, supply chain partners, end users, and others to directly govern the growth and direction of Kernza in the marketplace, perhaps through alternative ownership structures, such as Steward Ownership. Scaling Kernza requires innovating farm to end use chains to be more fairly distributed and equitable.

Green Lands Blue Waters

Spotlight excerpt from: *Our Journey to a Transformed Agriculture through Continuous Living Cover*
Green Lands Blue Waters. Our Journey to a Transformed Agriculture through Continuous Living Cover. https://greenlandsbluewaters.org/wp-content/uploads/2021/08/OurJourneyToTransformedAgThruCLC-GLBW2021.pdf (2021).