Community Grains

–a fully integrated, transformative whole grain products company providing:

- A Better Wheat. Premium organic wheat from nutrient-rich soils yielding better flavor profiles and nutritional content.

- The Highest Standard of Transparency, challenging the commodity grain industry at its Achilles' heel by disclosing the origin of our flour from seed to mill. Developing leadership and trust.

- 100% Certifiable True Whole Grain. Community Grains' newly developed bio- marker testing method accurately measures the composition of wheat flour and scientifically ascertained that ours is 100% true whole grain.

- Value-Added Products, the very best of their class, building a brand of quality and trustworthiness that can market a broad spectrum of products.

What is a transformative grain system? –Ours is 10 things.

Our food system is broken. The innovations Community Grains has put into place over the past seven years have created a complete, advanced alternative grain system that integrates sustainable growers, producers, scientists, and food professionals into one functioning alliance.

1. Farming Soil, Ecology, and Systems

Context: Since the beginning of agriculture, farming has removed nutrients from soil and caused water and wind erosion, creating the need for replenishment of minerals and organic nutrients. Industrially farmed wheat, both organic and conventional, is grown on compromised, non-replenished soil. Large-scale fields of monoculture crops create commensurately large problems: degraded soils and less nutritious crops. Moreover, depletion of natural soil amendments without a regenerative farming system in place deprives soil of its ability to capture carbon.

Innovation: When Community Grains discovered that wheat grown by sustainable farmers in northern California was markedly better in nutrient content, flavor, and functionality than industrially grown wheat, soil became the center of Community Grains' wheat husbandry. Over the past decades, our farmers have learned through experimentation how to improve their soils' nutrient content by using crop rotation, cover cropping, multi-cropping, no-/low-till practices, and dry-farming techniques, to name a few. Soils rich in organic amendments and organisms capture carbon–an important method for reducing atmospheric greenhouse gases.

Status: Organic soil improvement using both traditional and newly devised practices is well underway and could be the most exciting area of innovation for the future of food production.

2. De-Commoditization, and the Competitive Advantage

Context: As public awareness ramps up its interest in whole grains, most industrial whole wheat, organic and conventional, relies on the perception that all whole wheat is the same. Some do advertise that theirs is different and better, without offering any verifiable facts behind such claims. But poor flavor, inferior performance, and poorer nutrient content nullify those assertions.

Innovation: Community Grains has assembled innovative independent growers, scientists, producers, and food professionals to create not just a political entity but also a fully functioning complete grain system. We've merged, filled in the gaps, and coordinated a business alliance and belief for our common advantage and economic success.

The quality of our products is unparalleled, based as they are on the quality of the wheat varieties, farming, milling, pasta extrusion, bread baking and so on. There are no other whole wheat products on the market that come close. That quality really comes down to the fact that our products have been shaped and informed by our exceptional community. Community is what we are built on, with common-purpose relationships and personal friendships we've maintained for decades. From our familiarity with scientists, millers, farmers, seed breeders, and food professionals, we have early access to information that allows us to shape and reshape our products quickly to stay ahead of the curve. And the proven high-nutrient value of our products (along with their superior taste) give us an advantage when it comes to supplying schools, hospitals, and other institutions who are searching for easy ways to provide those they feed with a more nutritious, better tasting diet.

Status: Our products will get better and better as we grow our community and gain collective knowledge season by season. We look forward to initiating, developing, and nurturing relationships and including new members in our community.

3. Seed

Context: Most new seeds developed for an industrial grain economy are bred by chemical/seed companies and universities, largely funded by big ag. Many such varieties rely on large quantities of chemicals not permissible in organic farming. They also lack some of the other attributes we look for, with large proportions of endosperm–which contains few of the wheat kernel's nutrients–for white flour production.

Innovation: Community Grains sources two types of wheat seed varieties: select heritage wheat varieties from Europe and America, and university-bred seed developed for specific climates, soil conditions, disease resistance, and abundant, healthy yields. We choose seeds that offer flavor, character, and healthy yields, whether they are heirloom varieties of pasta wheat such as 'Senatore Capelli' and 'Frasinetto' from Italy, or modern American baking wheat such as 'Edison' and 'Patwin.' Planting selections are made on a farm-by-farm basis based on the farmer's experience with previous plantings.

Status: Community Grains has a continuing wheat variety development support and acquisition program. We aspire to include more feedback from bakers and food producers in our farmers' planting selections.

4. Wheat: Diversity and Quality

Context: The introduction of the industrial roller mill 140 years ago created a wheat industry that could produce white flour inexpensively for the masses, and which changed the diet of most Americans. The industry devised a standard for evaluating wheat thus produced: by protein, moisture, "falling number," farinagraph, and avleogram. Those measurements determine which wheat is fit for industrial baking and processing for human consumption (mostly as white flour), and which is only appropriate as animal feed. For over a century, most American wheat developers ignored flavor and nutrition in favor of industrial performance for producing white flour.

Innovation: Because industrial wheat seeds are designed neither to become whole grain flour nor to be grown by sustainable farmers, Community Grains is dedicated to the search for diverse varieties of heritage seed and the most appropriate of the newly bred varietals from universities. Our more vital, flavorful, and healthful wheats are given to non-uniform characteristics that would never be compatible with the industrial system. As we began to engage with whole-grain bakers, we discovered that they could find ways to make extraordinary breads with unique flours, using slightly different techniques, longer fermentation times, and adjustments for each harvest and wheat variety. It is now our job to communicate flour attributes beyond the conventional metrics and educate bakers to the possibilities of diverse flours.

Status: Early stages.

5. Infrastructure

Context: At the geographical center of any grain economy is the grain elevator, where grain is measured, stored, and cleaned. At industrial granaries, truckloads of grain are dumped into silos and the provenance of the grains is lost to the commodity market before it is transported to industrial mills (some of which can process over four million pounds of wheat per day). There is no place for good farming in such a system, and no reward for the higher nutritional content and exceptional flavor that come from building soil. It is a marvel of the industrial age, but a model of poor food production.

Innovation: Plans are underway for a regional granary that would clean and store our farmers' grain, and preserve each crop's identity. As detailed in the attached USDA feasibility study, the facility, co-owned by participating farmers, will remove the major impediment to a complete, self-contained local grain economy. It will be the center, too, of a knowledge base for farmers whose previous information sources have been restricted to farm advisors and chemical companies.

Status: The new, local cleaning and storage facility is planned for fall 2018.

6. Transparency: Identity Preserved Wheat

Context: The industrial grain industry often misleads the public about its products. Current labeling laws for "whole grain" are, in the main, too broad and, frankly, inaccurate. Even though more wheat is grown worldwide than any other crop, Americans know less about it than any other major food. Packaging on a bag of flour conveys little beyond whether it is white (bleached or unbleached), "whole wheat" (containing some undisclosed amount of bran and germ), or, in an unverified claim, "stone ground."

Innovation: Although the USDA offers a transparency program called "Identity Preserved," theirs is a very low bar. Community Grains, with our exceptional products and the ability to track all of them easily, saw an opportunity to help educate consumers about wheat and to reveal the superiority of all phases of our production. We offer Twenty-Three Points of Identity. Major points of identity are printed right on the pasta boxes (farmer, location of farm, class of wheat and variety, mill location); for the remainder of the 23 points, the consumer uses a batch number on the box for easy access at our website. Farming methods, harvest and milling dates, protein content, labor practices at the farm, soil type and development, and so on, are all revealed. Twenty-Three Points is a creative, eminently useful alternative to certification (currently unavailable) and creates an immense area of differentiation. Our 23 points have garnished interest from large companies who recognize and are responding to this important consumer trend.

Status: Ongoing.

7. Milling

Context: Industrial roller mills are the world's chief method of milling wheat. They are high volume, and their primary product is refined white flour consisting of endosperm only. In the roller mill the wheat kernel is separated through filtering into its constituent parts–germ, bran, aleurone layer, and endosperm–which are then processed separately. If the product is to be "whole grain flour," the parts are then reconstituted, with some of the

bran and some of the germ omitted. That raises questions concerning the effects of kernel separation: how does the body metabolize reconstituted wheat products, and how is cooking with reconstituted flour different from cooking with flour milled intact? FDA guidelines are ambiguous in their Whole Grain definition, which industry can hide behind. There is currently no universally accepted definition for Whole Grain.

Innovation: WHOLE MEANS WHOLE. *The advanced Japanese air classifier mill we use is essential to what characterizes our flour.* It creates exceptionally fine, uniformly granulated 100% whole grain flour that performs as well in our baked goods as it does in our pastas. The wheat is milled intact so that nothing is sifted out in the process of milling. Whole kernels enter the mill, and 100% whole grain flour comes out. It is never separated or reconstituted.

Status: We look forward to continuing our long-standing, mutually beneficial relationship with Bay State Milling, and continued discussions with researchers and chefs into the effects of milling on flour characteristics.

8. Scale

Context: With the fast-growing demand for organic wheat, commodity growers are responding by trying to convert conventional farms to organic. As with other industrial organic crops, the results comply with the letter of the law, but lack a complete system to support maximum nutrition.

Innovation: We think a better approach is to plug wheat into, and scale-up, the already well-devised systems organic farmers have implemented using crop rotation, no-till, and other methods. Community Grains is in an excellent position to increase production very significantly with organic farmers who want to integrate wheat production with other diverse crops, offering them an established milling and marketing infrastructure and sustainable price for the wheat. Many organic farmers have maxed out at farmers' markets and with customer-direct CSAs, and are looking for increased diversity with a preexisting support structure and broadened market. Adding wheat to their crop profile can give them the opportunity to further improve and enlarge their land holdings.

Status: In progress. Over the past four years we've worked with some of the most revered farmers in the Bay Area, who are known for their fine vegetables and fruits, to incorporate our wheat varieties into their rotations. The number grows every season.

9. Marketing

Context: Current industrial-wheat selling points are imprecise, stale, and uninformative, especially when they are unsubstantiated by any new, reliable, or exciting information about their product. Delicious and nutritious are the same words Wonder Bread used just after WWII. Not surprisingly, the resulting paradigm for wheat-based food marketing is one of consumer distrust.

Innovation: Given the complexity of what sustainably grown, pure whole grain products are and their importance, Community Grains' job is to put information front and center. As other companies rely on coupons, cute dogs, and cost incentives, our information system IS the marketing. Our leadership position in the field of pure whole foods allows us to take advantage in this era of consumer mistrust and makes it easier to sell a broad spectrum of value-added foods. Not only are our products unequaled—in health attributes, flavor, and performance— but we also qualify as a voice of authority and honesty, backed by highly accredited scientists, respected public figures, and beloved young chefs and bakers. And as knowledge of food synergy becomes widespread, Community Grains' 100% whole grain wheat flour, milled intact, will be a fine selling point.

Status: Robust social media and web content plan to disseminate information and news about wheat science and culture, and complement the information on our packaging. Our application is in for USDA's Local Food Promotion Program grant, which would put $500k toward marketing local whole grains.

INCLUDE: grant proposal model for how we present ourselves—with or without grant money

10. Value-Added Products

Context: Our work with farmers—and the wheat they enable our millers to make into flour—along with our unique milling process, comprise the heart of our business. Our premium flour can only be offered at a premium price, with low margins. We will, of course, continue to offer that flour to bakers and restaurants as the key, consummate component of our business. But at our current scale, the economics kick in with the value-added products our flour enables us to offer, and when we partner with larger brands for bulk orders.

Innovation: We offer value-added products in every sales channel—retail, wholesale, and partnership. Value-added products such as Identity Preserved pasta and Identity Preserved breads, along with bulk partnerships with Blue Apron, Eataly, Rudi's, and Annie's, are our largest revenue sources on the horizon. Value-added products do the legwork of cooking and baking with whole grains to make it easy for home and commercial cooks to access these beautiful foods. We've become known for our whole grain pastas, which dramatically out-perform the whole grain pasta competition. And we're weeks away from releasing an exceptional, 100% whole grain Identity Preserved bread.

Status: We are up and running with Blue Apron, about to ship our first order of hearth bread, and in talks with Annie's and Eataly to partner at scale.

We've created an assemblage: putting together and creating a functioning, not just political, alliance, a working integration of others into one functioning process from soil to seed to plants to milling to storage to product production. Community Grains doesn't own the pieces; we've merged, advised, filled the gaps between them, and coordinated them for their mutual advantage and ours as a business and a belief.

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Health

Innovation: Wheat is a particularly nutrient-dense grain. As new scientific research becomes widely publicized (see Atlantic article), dispelling previous objections to wheat consumption, the nutrient content of whole wheat, with its fiber, vitamins B1, B2, B3, B6, and E, folic acid, Ca, P, Zn, Cu, Fe, Mn, Mg, Se, and protein, will come to the fore. It is widely accepted that white flour contains few vitamins and minerals, not to mention its original fiber. But industrially milled "whole grain" flour is depleted too. Roller mills break down the kernel, and the parts are sifted. Then some undisclosed portion of the germ and bran (along with fiber from other sources as is seen fit) are put back in.

With the air classifier mill, Community Grains never breaks apart the kernel. Consuming a food whole and not reconstituted is invaluable. The natural relationship of each constituent part of non-reconstituted kernels regulates absorption and metabolism–maintaining the synergy of the kernel. As Michael Pollan says, "It's hard to outsmart a well-designed seed." Studies show that the health benefits of foods eaten whole exceed those of the sum of their parts by quite a lot. Moreover, heat from high volume roller mills destroys much of the E vitamins, particularly gamma tocopherol, the most important of the anti-inflammatories.

Community Grains will continue its association with nutrition scientists, getting closer to answers about the effects of true whole grain on disease prevention, digestive health, and nutrient absorption. We plan on introducing an ever-expanding menu of 100% whole grain wheat products.