

SEEDS OF CHANGE eNewsletter #71

<http://www.seedsofchange.com/>

100% Organic Seeds and Food

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Dear Organic Gardeners,

http://www.seedsofchange.com/enewsletter/issue_71/dear_gardeners.aspx

Dear Organic Gardeners,

Ominous afternoon clouds have been billowing over the farm recently, with odd regularity for this time of year (early monsoon, we wonder?), bringing an astonishment of welcome moisture to the thirsty fields of our El Guique farm. The rain, supported by the unceasing effort to keep up with a regimen of steady irrigation, has encouraged the sprouting and greening of soil and plant beds, awakening the farm from its winter dormancy, and treating those of us who are watching to a witnessing of the slow, steady rise of life from the dry dirt. With the emergent leaves come the hum of bees and other pollinators, the shine and flow of water in the ditches, the laughter and chatter of farm crew camaraderie, and a feeling of health and vitality on the land. Mulberries are popping on the trees, staining the pathways indigo; the quince portends a weighty harvest. Walking past the pea trellis, I snag a few pods with my right hand and peel them open to taste the first sweetness of this year's bounty, which promises much bounty indeed. With our new farm manager Eero Ruuttila on board, the farm seems to be undergoing a poetic transformation, with soil building at high priority. Interns watch with pride as their hard work yields results, and they begin to understand what it means to 'stay on the right side of biology.'

The beginning of the season has also seen an opening of the farm gates to community: from our annual seed give-away, to the first session of this year's permaculture course, as well as the exciting beginnings of our expanded collaboration with the Picuris-Peñasco communities: Project G.R.O.W.

In this issue of Cutting Edge, Eero shares his perceptions and discoveries of early life on the farm and reveals why 'water is life.' Research Manager, Richard Bernard, gives an

update on our research and trial programs. Intern Allison Cekala tells us of the exciting launch of Project G.R.O.W., and Terry Allan and I report on the two Field Day events we hosted in California and Georgia earlier this season. Steve Peters hints at future product offerings to look forward to, and, for good measure, and in acknowledgement that agriculture is both a science and an art, Eero offers forth a poem inspired by this past New Mexico May.

We have been busy, and are fed by the energy building all around us in the form of plant life, human interaction, and the good, hard, muscle and sweat of farm work. Our collective perception is being honed to notice subtle changes in the land, and to respond accordingly; our work sways with the measured cadence of a dance.

As cover crop grains and legumes emerge where they never have before, and peas and lettuces arise to embellish our lunches, and water arrives, both from the sky, and from river, to nourish new transplants, to blush red the recurring strawberries, and to ripen the over-wintered garlic, the farm takes on a rhythm of its own, which calls us to attention, and to humility. It is a feeling of awe, wonder and respect to witness this beautiful, specific collaboration between ecosystem, elements, and our particular human hands, which calls forth life in such abundance.

May this wonder be spread through all gardens and their caretakers.

Best wishes for a prolific and awe-inspiring summer,

Lindsay Dozoretz

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Seed Research Update
by Richard Bernard, Seeds of Change Research Manager

http://www.seedsofchange.com/enewsletter/issue_71/seed_research.aspx

Our research agenda here at Seeds of Change is complex, based on the fact that we serve a whole range of organic growers in USA, on farms and gardens of various types and sizes, with uniquely adapted land management strategies. Those growers rely on the quality of our seeds and the precision of our plant genetics in order to successfully grow a diversity of crops in a variety of ecologically-specific locations. Since there is a great diversity of growing environments across the United States, our strategy is to target representational growing areas in different regions (coastal California, Oregon's Willamette Valley, south Georgia, to name a few) in order to make our trial results and product developments relevant and applicable to growers across a wide array of bio-regions.

When targeting an area, we do not attempt to do all the work ourselves, but instead seek out partnerships with area growers and universities willing to collaborate with Seeds of Change in this effort of selecting and developing new plant varieties. This allows for a greater sum of knowledge and talent to go into our work, and also provides an incredibly

valuable feedback loop, since we receive direct input on crop performance from the working fields of experienced farmers in a particular region.

We are proud today to have some of the most innovative, leading organic growers in the country doing trials with us. These include: Blue Heron Farm in upstate New York, Woodland Gardens in Georgia, Harmony Valley Farm in Wisconsin, Piedmont Biofarms and Black River Farm in North Carolina, Durst Organic Growers and Phil Foster Ranches in California, and Abbondanza Farms in Colorado. We also currently have partnerships with the following universities: UC Davis, UC Santa Cruz, New Mexico State University, Cornell University, North Carolina State University, and work often with the Organic Seed Alliance in Washington state. Our Seeds of Change farm in New Mexico is also a part of this network and helps us select for plants particularly adapted to a high desert environment. We also have our own internal trial locations outside of Eugene, Oregon and Sebastopol, California as well as a garden trial site in southern Maine.

Our strategy is to focus not only on genetic traits but on their expression in a particular environment. We aim at finding the right genetics for the targeted environment and specific ecological requirements of an area. We want to respond to organic consumers that are looking for greater diversity, authentic flavors and higher nutritional profiles, as well as to satisfy the needs of organic growers that are looking for plants that have high resistance to stress and disease, and that will also perform better in low-input systems typical to organic farming. These factors and goals help us identify the desirable traits present in the large variety of cultivars that we have in our trial plans. This year, we have more than 500 new entries of all kinds, with a particular focus in lettuce, greens, peppers, tomatoes, squashes and melons.

One example of a specific research endeavor that is yielding promising development is a spinach project we have been conducting in partnership with the Organic Seed Alliance (OSA). After several trials at different locations and different dates, also comparing organic growing conditions versus those in conventional systems, we have found that spinach can develop high level of nitrates when provided high levels of nitrogen. We have also discovered that spinach grown within a controlled range of stress levels combined with adequate soil fertility will increase the levels of healthy components such as flavonoids. Based on these observations, we have set up a network of field trials with organic and conventional growers to screen spinach varieties for lower levels of nitrates and higher levels of flavonoids and vitamin C. We are now evaluating these nutritional traits beside more traditional traits like leaf texture, flavor and yield. In collaboration with OSA, we hope to introduce new cultivars with enhanced flavor profiles that are also more adapted to organic growing systems. These cultivars will not be selected to perform well in high-input conventional systems, nor will they be selected for intensive spinach cultivation with high pressure of downy mildew as in the Salinas Valley in California; rather they will be adapted to growing conditions that strive to work within the ecology, and that are focused on production of flavorful crops of high nutritive value, rather than solely on yield.

Some other promising new products that should make their way into the Seeds of Change offerings in 2010 and 2011 are a white slicer cucumber, cantaloupes with new flavor profiles, a range of greens for different seasons, specialty peppers, and summer squashes of various colors, shapes and flavors.

Look for updates on these and other projects in the near future!

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Project G.R.O.W. has begun!
by Allison Cekala - intern

http://www.seedsofchange.com/enewsletter/issue_71/project_grow.aspx

This week, a few of us from the Seeds of Change Farm will be heading up the high road to Taos into the secluded mountaintop communities of Peñasco and the Picuris Pueblo, where the snow has long since melted and the rich soil is tilled and ready for crops. There, a group high school-aged future farmers will await us with shovels and pitchforks, ready to plant and seed this season's crops for the first official day of Project G.R.O.W., a summer-long organic food donation and education program we are implementing in partnership with the Picuris-Peñasco Community Coalition to encourage local food security.

Last year, Seeds of Change formed a relationship with the Picuris-Peñasco community, a community, like many, struggling with rising food prices and the challenging economy. Historically the region has had a strong agricultural tradition, but over the last 30 years or so, the practice of farming has slowly been lost. This, coupled with the recent closure of the only area grocery store, has created a real need for food in the area. Last season, Seeds of Change, in partnership with the Picuris-Peñasco Community Coalition, established a free produce distribution program for sixty families from the Picuris Pueblo and the 15 villages in the Peñasco school district. The fresh, organic produce, grown at our Research Farm benefited the community greatly, complemented by the program's added educational components of farm visits and the dissemination of information on the nutritional and economic importance of local, organic food.

Seeds of Change, thrilled with overwhelmingly positive response to last year's food distribution program, is now funding an expanded program with the Picuris-Peñasco community. The newly-designated Project G.R.O.W. (Growing Roots of Wellness) is a being partially supported by the Seeds of Change 1% Fund - wherein one percent of all sales are donated to sustainable food initiatives, in this case, right in our backyard. The expanded project adds local youth and local farm plots for more food and more community involvement, more than doubling the amount of families served to 150. Five high-school interns and one community-member coordinator have been hired for the project to be the backbone of the farm labor force and distribution events, providing job training and exposing these youth to traditional and organic agricultural practices, allowing them to experience farming from seed to plate, while developing an understanding for the need for sustainable food systems in the greater community.

We are anticipating great things for Project G.R.O.W., planting many seeds (both literally and figuratively). We hope for abundant growth of our crops, nourishing growth within the community, self-growth and discovery within our interns, and possibly, hopefully, economic growth in the Peñasco region of northern New Mexico, inspiring a revival of local agriculture as a means to provide regional food security.

More updates to come! Stay tuned...

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New Varieties on the Horizon
by Steve Peters - Product Development Manager

http://www.seedsofchange.com/enewsletter/issue_71/new_products.aspx

So what's new at Seeds of Change? What are the latest and greatest new varieties and unusual crops that taste good and are also nutritious? Our product development team has been dedicated to learning about, growing and selecting promising new vegetable, herb, and flower varieties and species, at our Research Farm in New Mexico, and at several trial sites throughout the country. As a result of this work, we will be offering many of these unique, new plants over the course of the next several years. Mother Nature's rich bounty of biologically diverse plants has given us the opportunity for discovery, which enriches us both physically and spiritually. We are continually surprised at how much we still don't know and are awed by the astonishing variation that exists in the plant world. Many of the potential new offerings outlined below are a part of this journey of discovery.

Beans, as a staple, leguminous food crop, are a key focus area. Last year we introduced several flavorful and colorful purple and green snap-bean varieties including 'Long Lake Giant', 'Purple Dove', 'Robert's Royalty', 'Purple Rose', and 'Rose Creek' from the late Robert Lobitz, an inspired and inventive independent plant breeder. Among some of the new Lobitz additions within the next year or two will be the lovely, extremely tender pink-podded variety, 'Red Swan'.

Edible soybeans, edamames, are a staple in Japan and have recently become popular in the U.S. We currently offer two varieties, Sayamasume and Shirofumi, but we are trialing many more Asian varieties that are adapted to various latitudes across North America. The emphasis is on high yields combined with good flavor and eating quality, and there will be good varietal choices for gardeners throughout the country.

Fava beans are another nutritious and productive legume in which there is great diversity. We recently have grown three rare, large-seeded varieties from Bolivia which potentially are better adapted to harsher environments than the varieties from North Africa and the Mediterranean. We hope to have these varieties available within 2-3 years.

Colored carrots - red, yellow, purple or white (but not orange), are attracting attention not just for their unusual color but for their nutritive value. We have projects underway with the USDA and the Organic Seed Alliance to develop and breed tasty, nourishing colored

carrots that have never before existed. Commercial availability will occur within 4-5 years.

Corn is one of the most diverse of all crops, and although it has been around for several thousand years, it continues to evolve through breeding efforts. We recently introduced a white-kerneled corn with purple cobs - 'Martian Jewels' - that contains normal sugary (SU), sugary enhanced (SE), and flour corn genetics. It has a rich, sweet yet complex flavor that is unique among sweet corns. We will soon be offering a purple-kerneled version of this variety, and some multi-colored sweet corns that are useful for roasting and flour as well.

The brassica family (cabbage, broccoli, etc.) is one of our most important and health-giving crop groups, and the wide range of colors, textures, and flavors found in this family provide a constant source of discovery. One of our seed growers, Nash Huber, has been developing a sweet and tender curled-type red kale over the past several years, and the seed should be available for gardeners within a couple of years. Alan Kapuler, who has developed numerous crop varieties for Seeds of Change for over 20 years, has been crossing various collards, kales, and broccolis resulting in novel cultivars such as the dark, shiny-leafed 'Steely Green' kale. Currently, virtually all Napa-type Chinese cabbage varieties are hybrids. Alan Kapuler and Seeds of Change grower Alan Adesse have been selecting for an open-pollinated Napa cabbage that reliably produces the characteristic barrel-shaped heads, so that soon, for the first time, seed savers will have a variety they can maintain. We are also trialing red savoyed cabbages, and red and white turnip varieties that are truly a gourmet's delight.

Peas are another crop undergoing exciting new developments. Alan Kapuler has been breeding for improved sugar snap (edible podded) types for exceptional vigor and yield. In an ideal pea environment such as the pacific Northwest, these new varieties have attained heights of 12 feet or more, and last year's crop produced up to 80 seeds for each seed planted! Furthermore, these varieties have gorgeous pink and magenta flowers and yield peas with various shades of pink and purple-colored pods. Look for at least three varieties by 2011.

The Chile Institute, which is affiliated with New Mexico State University, has been developing improved NuMex (Anaheim-type) chile peppers, which we will continue to offer in the coming years. They also are close to having a mild Habañero that lacks the scalding heat but retains the wonderful fruity flavor of this chile pepper. Seeds of Change is poised to produce these Habañeros organically in the very near future.

Another crop with new varieties coming soon is winter squash. In particular, look for a single-serving sized Butternut squash developed by Cornell University, and a bush-habit Buttercup variety developed for small spaces.

While we currently offer dozens of tomatoes, there continues to be a surprising amount of innovation with this crop. Once again, Alan Kapuler is working on high-yielding, cherry-sized varieties that produce hundreds of flower on one tress, and resemble a cluster of

grapes. This remarkable trait exists in yellow and red varieties, and represents a new development in tomato breeding. We are also working with independent tomato breeder, Fred Hempel, who bred last year's new introduction 'Maglia Rosa', a highly flavorful, unique cocktail tomato. Look for more new varieties from Fred over the next several years.

We will also be expanding our flower line, with an emphasis on greater diversity within the cottage garden flower types - columbines, dahlias, hollyhocks, nasturtiums, marigolds, snapdragons, sweet peas, and zinnias. We will also be offering a wider range of native wildflowers from several bio-regions across the country.

Finally, we are testing many new cover crops in order to provide you with the very best options for improving your soil and enhancing your garden habitat to attract beneficial insects and birds.

This list is a sampling of projects we are working on, but we encourage you to give us your feedback regarding crops or varieties you think we should be providing. We welcome your comments, and will continue to report on our progress as we work on producing the heirlooms of tomorrow.

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Farm Update - Farm Mysteries to Unlock: The Beginning
by Eero Ruuttila - Seeds of Change Farm Manager

http://www.seedsofchange.com/enewsletter/issue_71/farm_update.aspx

"Water is Life" is the title of a CD by a Saharan Tuareg guitar band a few of us at the farm have been listening to following a concert in Taos in mid-April. The farm interns (5) were recently arrived, and although they came on the heels of two measurable snowfalls, the farm fields were already dry. This year's farm staff of eight are all non-resident desert dwellers with the exception of an Arizona xeriscaper. We are learning that spring mud season is not a season in the desert highlands of New Mexico's upper Rio Grande. The first measurable precipitation of the spring came last night, all of a third of an inch, and unirrigated fields are certainly demonstrating that "water is life" (without it they're konked!!)

The farm's stationary pumps are located next to a community maintained acequia ditch funneling Rio Grande water, which is the farm's lifeline. The earliest of the outdoor tasks of the season was clearing the farm's own acequia ditches so that they would be ready to receive water for overhead irrigation, traditional field flooding, and eventually drip lines.

Chris Bell, the farm's physical plant technician, and Joe Martinez, a long standing local resident and semi-retired farm employee, have invested considerable hours trenching, repairing winter- damaged buried PVC lines, replacing above-ground risers & plugging gopher holes along the farm's acequia ditches to get the farm's water system up and running.

Automated water is now flowing where the service is easy. Direct-seeded carrots, spinach, and lettuce, as well as new asparagus, over-wintered garlic, transplanted onions, hand-planted potatoes & nearly-ready-to-pick strawberries are lining up for their necessary water sips. Coming from many years of vegetable cropping experience in moist New England, I've begun to realize that the standard weekly inch of water recommended for vegetable crops is inadequate in this region. I guess you can blame it on all of the glorious New Mexican sunshine and intense spring winds.

We are now on the midst of hand transplanting the majority of our two heated greenhouses' vegetable flats. John Steiner, my intrepid assistant, has single-handedly seeded and pricked out the entire stock of greenhouse plants since late January. Our crew of determined interns are now providing the muscle to get the plants into the ground.

Tomatoes went in last week, between uncut strips of over-wintered triticale. The still-growing triticale strips provide a wind buffer for the single rows of tomatoes, mitigating transplant shock. In a week the triticale will be flail-mowed and as a straw mulch it will be placed around the adjacent tomato plants to conserve moisture & suppress weeds. Onions went in nearly a month earlier, and off the farm, corn for trials at New Mexico State's Alcalde Research Station were hand-planted during a crisp morning the first week of May in the middle of the university's certified organic fields. Available room for wide-spaced crops is limited at the farm so the intern "boys" (JD & Jake) drove to the Tesuque Pueblo with staff breeder Richard Bernard where a field had been donated to plant into. This year's winter squash grow-out will require a little commuting time to monitor and nurture.

Meanwhile, the all-power-girls (interns, all): Allison, Justine & Sarah, moved drop-latch irrigation pipe into a two-acre field of dry-land legume candidates for future soil buffing and green-manuring (green manure crops use a combination of grains and legumes to build soil fertility.) They changed the oil on a 9 horsepower pump, cleared acequia screens, re-dug the hole for the suction line and generally mucked around until water was generously sprinkling on 12 different dry-land legumes nursed with oats. In my biased and maybe not so humble opinion, this field in particular will provide the most important information for the farm's future.

If water is life then soil fertility follows, and soil fertility up here in the high desert of northern New Mexico needs tough guys to hold their own when the pumps fail and the rain drops are splattering ridgetops in the far distance. Maybe Hykon clover or chickling vetch or crotoaria or sesbania or Papago cowpeas will demonstrate a will towards biomass and an inclination for scant water. Finding the appropriate legume for our farm's desert environment is one of the mysteries we hope to unlock this very busy and exciting summer season.

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New Mexico May Poem
by Eero Ruuttila

http://www.seedsofchange.com/enewsletter/issue_71/new_mexico_may_poem.aspx

Drinking morning's coffee, looking out my Pilar window
Pure joy in their maneuvers
(am I allowed to project happiness onto a bird?)

barn swallows in busy little clusters
wheeling, arcing, flipping up & diving downward

Rio Grande almost drowning island of Taos willows below the single-lane bridge

Mayflies hatched 2 weeks ago;
trout bellies full from all that feeding.
Larry says the fly-casters are out of luck.
What fish needs a bug on a hook?

The wild plums have dropped all their blossoms;
crab apple next door is a glorious blood red.

Were windows open,
the boat-strapped cars & barking dogs across the river,
they would seem all
that much closer.

Eero Ruuttila

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News and Events

http://www.seedsofchange.com/enewsletter/issue_71/news_and_events.aspx

Announcing the First-Ever Seeds of Change Urban Permaculture Class

This summer, Seeds of Change will host its first urban permaculture class, co-sponsored by the Permaculture Institute, from June 26-28th, in downtown Washington, D.C.!!

The course, Permaculture Fundamentals: Designing Urban Food Gardens, will be taught by instructor Steve Gabriel, Educator and Program Coordinator for the Finger Lakes Permaculture Institute, and will be held at the Common Good City Farm, an urban community farm and education center in LeDroit park in downtown D.C.

The weekend will be focused on learning the basics of permaculture design and urban gardening, and students will walk away with a toolbox of ecological design principles to be applied in their own backyard or community.

Discussion on basic theories of permaculture design and ecology will be mixed with hands-on learning of skills including composting, rain gardens and soil improvement.

For additional questions about this program, please contact arina@permaculture.org, or call 505-455-0514.

To register for this course, or for more information, go to this link:
<https://garden.locker10.com/civicrm/event/info?reset=1&id=6>

Seeds of Change Farm to Host Upward Bound Summer Program

We are excited to announce that the Seeds of Change Farm in El Guique, NM will be one of the sites for the Eight Northern Indian Pueblos Council high-school summer program, Upward Bound.

The Upward Bound program is intended to provide a hands-on experience in environmental education for high school students from the northern pueblo communities of New Mexico, by connecting these students with existing environmental projects where they can engage in experiential learning: gaining academic knowledge and getting their hands dirty at once.

At our farm, the focus of this experience will be on the importance of sustainable, organic agriculture and of re-connecting with the sources of our food.

We will host a group of 7-10 students for five weeks of hands-on sessions, where they will become part of the farm crew and learn the greater objectives of our farm and business, as well as participate in the small but essential tasks that keep us progressing towards our goals every day.

For the program finale, the entire Upward Bound program will be taking a site tour, visiting all of the host organizations, and allowing those students that worked with each site to share their experiences and learnings with the rest of the group.

We are excited to be involved in this program, and to share our farm as a place for learning and experience, while building valuable relationships within our local community.

Organic Research given Priority in 2010 Budget Proposal

The Obama Administration's USDA budget for fiscal year 2010 has placed research on organics in a place of priority.

Whereas the Organic Agriculture Research and Extension Initiative received \$3 million in 2008, which was 3% of the total USDA budget then, the program is slated to receive \$20 million in 2010, 16% of the total proposed budget, ranking in at second in terms of the level of funding per individual programs.

The program would fall under the newly-established National Institute of Food and Agriculture, whose total budget would be \$127 million to be shared across thirteen programs.

The Organic Agriculture Research and Extension Initiative, as stated in the budget summary, was "created to solve critical organic agriculture problems through the integration of research and extension grants."

(Source: USDA budget proposal, found at <http://www.obpa.usda.gov/budsum/FY10budsum.pdf>)

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