

# Stewardship Leaders in Agriculture

## Renewable Energy

### RUSS LESTER-DIXON RIDGE FARMS

The Lester family has been in the business of family farming in California since 1883. It was in 1979 that Russ Lester decided to follow his father's footsteps and start Dixon Ridge Farms with his wife Kathy. Dixon Ridge Farms is a leading organic walnut grower, buyer, and processor based in Winters California that works to grow, process, and market certified organic walnuts. In 1989 Russ and his wife made the shift from conventional farming to organic production after Russ' father passed away from Non-Hodgkin's lymphoma, a type of cancer linked to exposure to herbicides. At the time not many growers were farming organically and the transition required much collaboration with researchers and organizations to develop the whole-systems approach that Dixon Ridge Farms continues to improve upon today.

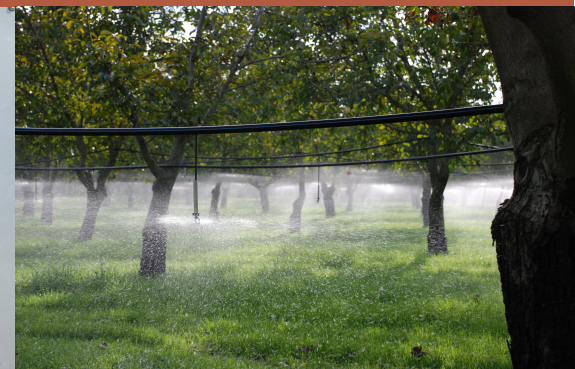
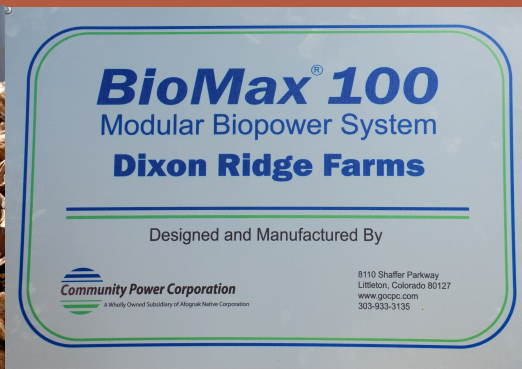
### SUSTAINABILITY AS A GUIDING PRINCIPAL

At the heart of providing their customers with a consistent supply of premium organic walnuts are award winning sustainability practices that reflect environmental, economic, and social responsibility. Russ is a director of the Solano Land Trust and Dixon Ridge Farms supports other family farmers by buying walnuts from more than 65 organic walnut growers. Dixon Ridge Farms also consciously works to decrease energy use while producing renewable energy on-site.



#### ACHIEVEMENTS

- California Certified Organic Farmers Certified
- Yolo County Model Farm
- CAFF Achievement Award
- Biologically Integrated Orchard Systems Farm
- 2013 CalCAN Farmer Leadership Award
- 2012 EPA Sustainable Ag Champion Award
- 2011 CARB's COOL California Award
- 2011 IPM Innovator Award
- 2010 Growing Green Award
- 2008 Governor's Environmental & Economic Leadership Award



Photos Courtesy of Jenny Lester Moffitt

*"My dad, grandfather and many before them were all farmers... It wasn't until my chemistry and botany classes in college, though, that I started realizing the potential effects of all these chemicals."-Russ Lester*



*"Our aim is to grow and process healthy, wholesome food in an environmentally responsible manner by developing, promoting and educating others about environmentally responsible agriculture."*

## PROJECT PARTNERS

California Climate and Agriculture Network (CalCAN), California Energy Commission, Community Power Corporation, American Farmland Trust, and University of California Cooperative Extension (UCCE)

## Renewable Energy and Dixon Ridge Farms

### BEGINNINGS

In 2007 Russ established a goal to become energy self-sufficient using only renewable energy sources. That same year they started converting walnut shells to electricity on site, saving both money and non-renewable resources. Additionally, solar panels atop their facility and their freezers help decrease energy use and produce power.

### PROJECT DETAILS

With grant support from the California Energy Commission and in partnership with Community Power Corporation, Dixon Ridge Farms is the first on-site farm to use the BioMax 50, a 50kW biogas powered generator that converts walnut shells into renewable energy. This energy is then used to fuel the drying facility in the fall, generate electricity year-round and heat buildings during the winter. In December 2012 a new BioMax 100 was installed and connected to the PG&E grid to produce about 643,000 kWh annually which is \$102,000 worth of electricity / year and \$24,000 of gas to off-set propane use in their dryers.

### IMPLEMENTATION AND MANAGEMENT

In their orchards they implement low or no-till and low-mow practices to reduce fuel usage and in their processing facilities they use energy efficient lighting and motors that have been upgraded with energy efficient Variable Speed Drives. They super insulate the walls of their freezers and utilize state of the art Einstein Controllers. By recycling heat in their drying facilities they are reducing propane consumption for walnut drying by 40%.

### FOSTERING SUCCESS

At the beginning of 2013 Dixon Ridge Farms achieved their long-held goal of electrical energy self-sufficiency for processing using only renewable energy. Key to meeting this goal was Russ' daughter Jenny taking over company product sales and administration. An additional BioMax module is planned for installation in late 2013 or early 2014 which will help offset energy needs as the company expands. The farm also serves as a research and educational facility for organic agriculture and Russ values the hard work of his employees as a crucial component to the farm's long-term success.

For more information please contact: