In Part I of coverage on mitigating changes in California agriculture we discussed how weather and climate events like fall and winter freezes, declining chill hours, and periods of drought present challenges to tree nut growers.

In this extended coverage we spotlight some of the programs and funding opportunities that already exist designed to help farmers and ranchers prepare for those challenges.

**California’s Climate Smart Agriculture**

Alli Rowe is one of ten California Department of Food and Agriculture-University of California cooperative extension specialists who are working to get farmers and ranchers better prepared for climate change. For details on where programs exist for your area, contact your local extension office or visit the California Climate Smart Alliance website.
National

in helping producers secure state funding for programs designed to provide tools and methods to minimize the risks of climate and weather changes.

“Half of our land is under cultivation or agricultural management,” Rowe told Western Farm Press in a recent telephone interview. “A Climate Smart Agriculture team is exciting because it is a brand-new goal for California and the nation and is the only one that is really dedicated to climate beneficial farming.”

Rowe says the team is tasked with education, outreach and technical assistance for smart agricultural practices. The team also provides grant information and assistance to farmers and ranchers on specific programs and helps in walking them through what some have termed comprehensive and even complicated grant proposal applications to secure funding.

“We are charged to promote and support the sustainability of agriculture in a beneficial way for the future,” she says. “The team represents a partnership between the University of California and the California Department of Food and Agriculture and one of our primary goals is to help farmers and ranchers apply for climate smart agricultural grants under the CDFA including the Healthy Soils grant.
Grant funding and the Climate Smart team are a helpful complement to the California Climate & Agriculture Network’s (CalCAN) sponsored bill (AB 2377) to scale up technical assistance to farmers and ranchers wanting to develop climate smart agriculture projects.

**Grants up to $100,000 annually**

The bill authored by Assembly member Jacqui Irwin (D-Thousand Oaks) and signed into law last September (2018) provides grants up to $100,000 annually for up to three years to help meet the state’s greenhouse gas emissions reduction target.

“With the signing of AB 2377, California is demonstrating leadership in making Climate Smart Agriculture practical and feasible for farmers and ranchers throughout the state,” said Jeanne Merrill, Policy Director with CalCAN following the signing ceremony last year.

Rowe says the climate smart team is working toward the same goal.

“Our team, for example, is promoting talks about compost conservation on rangeland and talks about mulching orchards and information about funding opportunities to promote interest and adoption of climate smart agriculture in California,” Rowe said.

She admits while funding is helping to promote smart agricultural practices, she says that costs associated with implementing those programs is a barrier for many farmers and ranchers who may be interested but are cautious about the investment required to implement and sustain programs like cover crops.
Rowe noted the return is not immediate, but in the long run, cover crops are going to save the farmer money year over year.

“Savings can result in using less water and lowering fertilizer inputs. Many farmers will also see higher yields as well as what they spend on soil health,” she added.

While smart agriculture programs and technology will expand in the months and years ahead, existing grant programs are available to help growers get started sooner rather than later.

Already some West Coast farmers are employing technology designed to fight back against the changing environment. California grower John Duarte (Duarte Nursery) in Modesto for example, who has said he doesn’t embrace the term climate change, is using cutting edge technology like agroponics to grow nut and fruit trees in a greenhouse that are suited to dry, hot and salty conditions.

Almond grower Gino Favagrossa is using flowering cover crops to benefit in water infiltration, soil enrichment and to attract bees and promote bee health in his orchard, measures that have worked for him for several years.

Regardless whether we think global climate is changing or prefer to think we are simply in an extended period of changing weather, climate smart agriculture represents the best method of mitigating the challenges farmers are facing in modern times.

California Climate Smart Programs and Grant Opportunities
(Note: Grant deadlines expired in April 2019. Refunding efforts are underway)