

Investing in a Sustainable Future

California Strawberry Commission Report | JANUARY 2013





LEADING THE WAY IN ENVIRONMENTAL FARMING PRACTICES

California's strawberry farmers are among the most progressive and environmentally conscious in the state and around the globe.

- California grows more organic strawberries than any place in the world
- California strawberry farmers lead the world in environmental research dedicated to reducing pesticide use
- California strawberry farmers pioneered drip irrigation and other environmentally friendly practices



LEADING THE WAY IN ORGANICS

All California strawberry farmers incorporate some organic farming methods into their operations.

- Hand weeding reduces chemical herbicide use
- Mechanical bug vacuums suck up harmful insects and reduce pesticide use
- Ladybugs and other beneficial insects released in the field are often the first line of defense
- Fish emulsion sometimes replaces the use of chemical fertilizers
- The California Strawberry Commission continues to provide millions of dollars for research into non-chemical farming methods





no. 1

California strawberry farmers grow more organic strawberries than any other place in the world, including all 49 other states combined.

1 OUT OF 5

About one out of every five California strawberry farmers grows both conventional and organic strawberries.



LEADING THE WAY IN RESEARCH & INNOVATION

California strawberry farmers have invested over \$13 million in research to explore alternatives to methyl bromide, more than any other commodity group in the world.

An Essential Tool

Fumigant pesticides clean the soil of pests and diseases before they can wipe out an entire crop. Fumigants play an essential role because no viable alternative tools exist to combat these soil borne pests.

Fumigants are not applied to strawberry plants. Nor are they applied when workers are in the field.

In fact, only licensed experts apply fumigants – and only prior to planting. Within days, the fumigants break down into natural compounds.

While fumigants are safe when used properly, California strawberry farmers are seeking long-term alternatives that are less costly, more flexible, and ease residents' concerns as urban sprawl encroaches on prime farmland.

Demonstrating leadership on the global stage, California's strawberry farmers have transitioned more acres out of methyl bromide faster than any other country in the world.

Recent research aims at finding viable alternatives to fumigants, including a joint initiative with the California Department of Pesticide Regulation.

“Fumigant pesticides are an important tool farmers use to control a wide variety of pests and diseases.”

– CA DEPARTMENT OF PESTICIDE REGULATION



Thriving strawberries growing in clean soil

California Strawberry Farmers are Global Leaders in Researching Fumigant Alternatives

	 NO SOIL	 STEAM	 MUSTARD SEEDS	 SOLAR	 WATER
WHAT IT IS	Sterile materials like peat, rice hulls and coconut coir replace soil.	Machine applies steam to soil in raised beds. Steam can kill pests and diseases in the soil.	Mustard seed meal is incorporated in the soil and sealed with tarps to create an unfavorable environment for soil diseases and pest.	Trap the sun's heat under clear tarps covering wet soil to kill diseases and pests.	Combination of organic matter (rice bran) and water mixed in soil to create anaerobic conditions under tarps, resulting in an unfavorable environment for soil diseases and pests.
BENEFITS	Potential pest-free medium for growing strawberries	No fumigants required; no significant changes to current practices	Natural fumigant and fertilizer	Sunlight is free; process is relatively inexpensive	Reasonable costs for materials
CHALLENGES	<ul style="list-style-type: none"> • Development of new production system • Limited availability of materials • High relative costs of materials and installation • Grower knowledge of system 	<ul style="list-style-type: none"> • Machine is very expensive • Can only treat a small area per day • Consumes large amounts of fossil fuels and water 	<ul style="list-style-type: none"> • Limited research on control of strawberry diseases • No weed control • Can be expensive • Limited understanding of use 	<ul style="list-style-type: none"> • Does not work in cool coastal climate • Only treats top 4-5 inches of soil in warmer climates; not effective enough to control strawberry diseases 	<ul style="list-style-type: none"> • Requires 4-6 inches additional water per acre • Limited availability of adequate quantities of rice bran • No weed control • Uneven/uncertain control of diseases



Devastation caused by soil-borne disease



LEADING THE WAY IN LAND PRESERVATION

California strawberry farmers protect *40,000 acres* along California's Central Coast.

Land

Strawberry fields provide the last line of defense against development. Few other crops can sustain the high land prices along the Central Coast. When farming is no longer viable in communities from Santa Cruz to Ventura, condos, homes, strip malls and traffic congestion fill that open space.





Air

California strawberry farmers have earned worldwide recognition for protecting air quality.

- Received US EPA's Stratospheric Ozone Protection Award for efforts to protect the Earth's atmosphere
- Employ innovative solar-powered equipment to limit diesel and gasoline emissions
- Utilize impermeable plastic tarps over fields to limit pesticide emissions, and spend over \$10 million to recycle this plastic annually

Water

California strawberry farmers are leading stewards of water conservation.

- In the 1970's, strawberry farmers pioneered drip irrigation as a tool for California agriculture
- Strawberries require less water per acre than an acre of homes in Los Angeles



“Our farm is close to schools and homes and we are very careful about how and when we use pesticides. We sometimes wait days because of wind and because we don’t want any kind of smell to drift into the community and we try to make applications at night. We are a part of this community and we would never do anything to harm our neighbors.”

– DANNY CHAVEZ
L & G Farms

“I’ve learned a lot from organics. These flowers around my fields are beautiful, but their main function is to attract beneficial insects...The public has a real misperception about how we farm. We only use pesticides if we have to – and even then, as judiciously as possible.”

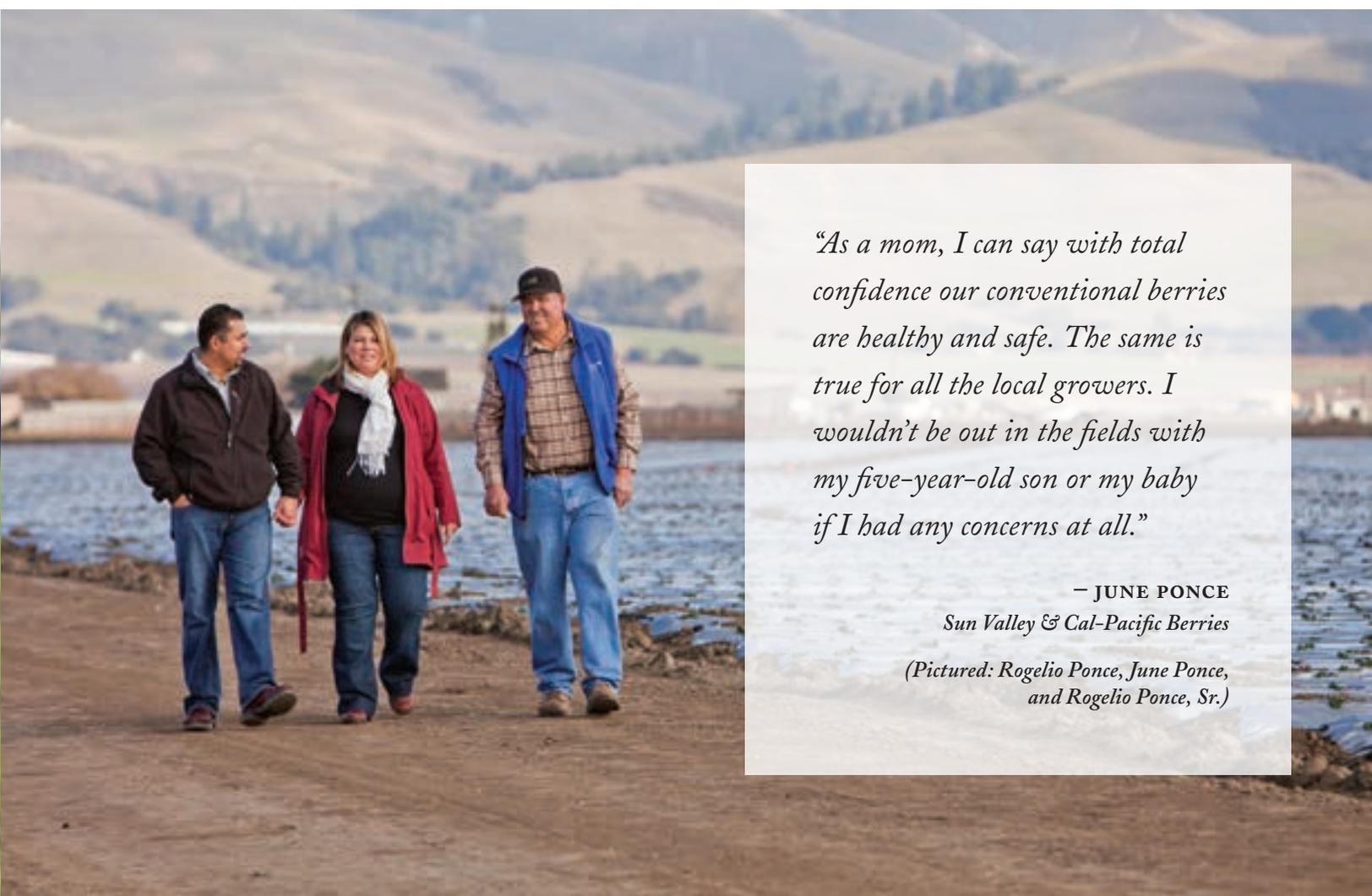
– HECTOR GUTIERREZ
Otilio Farms





“All of us consider ourselves stewards of the land. We enjoy what we do and want to preserve our farmland – and not cash out. We all live here in the communities. We eat the same fruit. Breathe the same air. We farm in a way that shows we are good neighbors in the community.”

– GLEN HASEGAWA
Isla Vista Farms



“As a mom, I can say with total confidence our conventional berries are healthy and safe. The same is true for all the local growers. I wouldn’t be out in the fields with my five-year-old son or my baby if I had any concerns at all.”

– JUNE PONCE
Sun Valley & Cal-Pacific Berries
(Pictured: Rogelio Ponce, June Ponce,
and Rogelio Ponce, Sr.)



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