## UCCE Logic Model for CA Dairy Development Situation:

California has been the largest milk producing state, earning the highest revenue from dairy industry in the U.S. But to keep the dairy industry economically viable and to maintain sustainable growth, "UC Cooperative Extension" need to address multiple challenges created by environmental regulations, quest for water, increased input cost, scarcity of skilled workers, changing consumer demand, etc. UCCE implemented various program/scheme for development of California Dairy industry.

Inputs	Outp Activities	uts Participation	Short	Outcomes Medium	Long
Human and Institutional resources Dairy CE Advisors	<b>Publications</b> UCCE newsletters, UCCE websites, fact sheets, social media, posts on UC ANR	<ul> <li>Dairy producers</li> <li>Non-English-Speaking farm workers</li> <li>Allied industry partners</li> <li>Dairy trade associations</li> <li>Dairy non-profit organization</li> <li>National and state govt agencies</li> <li>Extension advisors and specialist, and other academics</li> <li>College students</li> </ul>	Increased knowledge on dairy production related to: • Feeds, feeding and crop management • Environmental sustainability (water & air quality, climate change) • Animal husbandry (health, biosecurity, well-being, and housing) • Business management • Milk processing • Dairy products, including quality & safety • Develop a basic understanding of the dairy industry including: • Basic lactation • Production Practices • Milk harvesting • Health benefits of milk products • Animal care & management	<ul> <li>Informing policy (local and state) e.g. animal health, feeding regulation, air and water quality, etc.)</li> <li>Adoption of recommended dairy management practices such as:</li> <li>Animal husbandry (production, health, well-being reproduction, and biosecurity)</li> <li>Integration of herd health monitoring technologies and/or herd records to guide farm decisions</li> <li>Labor management and training</li> <li>Environmental sustainability (water &amp; air quality, reduce GHG emissions)</li> <li>Food safety</li> </ul>	<ul> <li>Protecting CA's natural resources</li> <li>Improved air quality</li> <li>Improved water quality</li> <li>Improved water-use efficiency</li> <li>Increased ecological sustainability of agriculture</li> <li>Improved management and use of land</li> </ul>
Other CE Advisors County Directors CE Specialists AES faculty Undergraduate and	blogs, local and industry media, peer-reviewed publications Other products				
Graduate Students Other UC and non-UC academics National and state govt.	<ul> <li>Apps</li> <li>Videos</li> </ul> Research including: <ul> <li>Animal nutrition, feeds and</li> </ul>				Building climate-resilient communities and ecosystems Increased preparedness and
agencies (California Department of Food and Agriculture [CDFA],	<ul> <li>feeding mgmt.</li> <li>Environmental sustainability (e.g., waste mgt_and water quality_air</li> </ul>			Adoption of improved feeds, feeding management, and crop production practices including:         • Drought tolerant crop production         • Feeding value of crops         • Use of by-products         • Nutrient management         Recognize and respond to herd health issues including: [farmers & veterinarians]         • Foot care         • Cattle diseases         • Improved antibiotic stewardship         • Preventative health management strategies         • Down cow care and euthanasia	and climate change
California Air Resources Board [CARB], etc.)	<ul> <li>quality, water use efficiency)</li> <li>Animal husbandry, herd health and well heing (a second sec</li></ul>				<ul> <li>Promoting sustainable and prosperous food production systems</li> <li>Improved animal management, productivity, and efficiency</li> </ul>
Dairy trade associations Dairy non-profit organizations.	disease surveillance, antimicrobial stewardship, housing)				
Dairy producers Dairy managers and entry level workers Processors and	<ul> <li>On-farm decision making based on integrating herd health monitoring technologies and herd records</li> </ul>				Safeguarding abundant and healthy food for all Californians • Improved food security • Improved food safety
creameries Financial resources	<ul> <li>Animal production efficiency (management, breeding)</li> </ul>			<ul> <li>Implement facility management practices including:</li> <li>Design and manage facilities for improved cow and calf comfort and welfare</li> <li>Heat stress management</li> <li>Pasture management</li> <li>Improved manure management</li> </ul>	
CDFA SARE UC Internal funding	<ul> <li>Extension including:</li> <li>Local Meetings</li> <li>Conferences</li> <li>Pairy Tours</li> </ul>	Consumers     Youth			
Non-profit organizations Allied dairy industry	<ul> <li>Field days</li> <li>Farm calls/individual consultation</li> <li>Youth/Youth train-the-trainer</li> <li>Community activities</li> </ul>			<ul> <li>Youth use and extend dairy management practices such as:</li> <li>Biosecurity, husbandry, well-being, nutrition, reproduction, food safety practices</li> <li>Cost of production</li> <li>Maintaining herd management records</li> </ul>	