**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.

**Youth use and extend dairy management practices** such as:

* Biosecurity, husbandry, well-being, nutrition, reproduction, food safety practices
* Cost of production
* Maintaining herd management records

**Informing policy** (local and state)e.g. animal health, feeding regulation, air and waterquality, etc.)

Adoption of **recommended dairy management practices** such as:

* Animal husbandry (production, health, well-being reproduction, and biosecurity)
* Integration of herd health monitoring technologies and/or herd records to guide farm decisions
* Labor management and training
* Environmental sustainability (water & air quality, reduce GHG emissions)
* Food safety

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

Implement **facility management** practices including:

* Design and manage facilities for improved cow and calf comfort and welfare
* Heat stress management
* Pasture management
* Improved manure management

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

*Safeguarding abundant and healthy food for all Californians*

* Improved food security
* Improved food safety

**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

**Human and Institutional resources**

Dairy CE Advisors

Other CE Advisors

County Directors

CE Specialists

AES faculty

Undergraduate and Graduate Students

Other UC and non-UC academics

National and state govt. agencies (California Department of Food and Agriculture [CDFA], California Air Resources Board [CARB], etc.)

Dairy trade associations Dairy non-profit organizations.

Dairy producers

Dairy managers and entry level workers

Processors and creameries

**Financial resources**

USDA NIFA

CDFA

SARE

UC Internal funding sources

Non-profit organizations

Allied dairy industry

**Publications**

UCCE newsletters, UCCE websites, fact sheets, social media, posts on UC ANR blogs, local and industry media, peer-reviewed publications

**Extension** including:

* Local Meetings
* Conferences
* Dairy Tours
* Field days
* Farm calls/individual consultation
* Youth/Youth train-the-trainer
* Community activities

**Research** including:

* Animal nutrition, feeds and feeding mgmt.
* Environmental sustainability (e.g., waste mgt. and water quality, air quality, water use efficiency)
* Animal husbandry, herd health and well-being (e.g. disease surveillance, antimicrobial stewardship, housing)
* On-farm decision making based on integrating herd health monitoring technologies and herd records
* Animal production efficiency (management, breeding)

**Other products**

* Apps
* Videos
* Dairy producers
* Non-English-Speaking farm workers
* Allied industry partners
* Dairy trade associations
* Dairy non-profit organization
* National and state govt agencies
* Extension advisors and specialist, and other academics
* College students

**Outcomes**

*Short* *Medium Long*

**Inputs**

**Develop a basic understanding** of the dairy industry including:

* Basic lactation
* Production Practices
* Milk harvesting
* Health benefits of milk products
* Animal care & management

*Promoting sustainable and prosperous food production systems*

* Improved animal management, productivity, and efficiency
* Consumers
* Youth

*Building climate-resilient communities and ecosystems*

* Increased preparedness and resilience to extreme weather and climate change

*Protecting CA’s natural resources*

* Improved air quality
* Improved water quality
* Improved water-use efficiency
* Increased ecological sustainability of agriculture
* Improved management and use of land

**Outputs**

*Activities* *Participation*