

RC/DO Strategic Plan & YR 2018-2022 Action Plan

Table of Contents

Contents

REEDLEY COLLEGE FARM LABORATORY STRATEGIC PLAN2		
GOAL 1: EXCELLENCE IN EDUCATION2		
DEVELOPING A VISION FOR THE NEXT DECADE		
HISTORY OF THE SCHOOL FARM LABORATORY		
INTRODUCTION6		
REEDLEY COLLEGE		
LEASED LAND		
CURRENT FARM LABORATORY PROJECTS8		
PLANNED FARM LABORATORY PROJECTS		
FARM LAB PROJECT COMPLETION TIMELINE SUMMARIES		
FARM LABORATORY ANNUAL EVENTS		

REEDLEY COLLEGE FARM LABORATORY STRATEGIC PLAN

GOAL 1: EXCELLENCE IN EDUCATION

1.1 The Reedley College Farm Laboratory is committed to supporting and assisting students in achieving their educational goals by offering premier academic, career technical training, and student support programs that enhance students' abilities to succeed in an increasingly complex and interconnected world.

The Reedley College Farm Laboratory is committed to providing the highest quality instructional programs using current and emerging instructional methods and technologies.

GOAL 2: INSTITUTIONAL EFFECTIVENESS

- 2.1 The Reedley College Farm Laboratory recognizes that it must be responsive to the population growth of the San Joaquin Valley and is committed to reducing enrollment barriers.
- 2.2 The Reedley College Farm Laboratory is committed to continually improve its organizational process to ensure its institutional effectiveness and accountability.
- 2.3 The Reedley College Farm Laboratory is committed to optimizing its resources while maintaining its fiscal integrity.

GOAL 3: LEADERSHIP IN HIGHER EDUCATION AND COMMUNITY COLLABORATION

- 3.1 The Reedley College Farm Laboratory is committed to being a partner in developing the economic vitality of the region through collaboration with its community partners and by offering and assuring access to quality career technical programs.
- 3.2 The Reedley College Farm Laboratory is committed to open and clear communication among its constituent groups and with its external communities.

DEVELOPING A VISION FOR THE NEXT DECADE...

The Reedley College Farm Laboratory is committed to working with corporate and small business partners in developing grants that would benefit our students and facilities. Examples of this collaboration include:

- The Natural Resources Program has been successful in establishing a River Ranger Program funded by an endowed grant by the Martin Family Trust. This is providing for Reedley College students to be employed in a Kings River restoration project.
- Business partners are expected to include training on AGNR facilities for fire suppression and urban
 fuels management. Entities: Cal Fire, ACRT, Davey Tree Expert Company, and the US Forest Service
 are currently coordinating training curriculum that will take place on the Reedley College Campus and
 the Reedley College Forest.
- An opportunity exists for developing a partnership within the Pesticide Manufacturing industry, specifically the Agricultural Research and Development divisions of these companies, to utilize the College Farm Laboratory to conduct field research in exchange for appropriate land use and/or crop loss (destruct) fees. Many corporations spend a significant portion of their research funding on grant-in-aid for field research studies. The potential for Reedley College student involvement in field R&D while gaining significant experience with these companies could prove valuable toward meaningful employment in this industry.
- Water conservation is a major topic of concern throughout the State of California and the Western
 United States. Several companies in the irrigation technology industry have been identified that the
 College Farm Laboratory would benefit from a partnership with. The opportunity to integrate emerging
 water-saving technology into our crop production systems would provide further student education
 through hands-on involvement and would further the preparedness of our graduates into this industry.

Regular facilities improvement is crucial to the success of the Reedley College Farm Laboratory in providing a valuable learning experience for students in the AGNR program.

- Improved wood processing, chainsaw laboratory, log deck, and lumber drying facilities to meet the needs of the Natural Resources Program.
- Animal Science Facility/Infrastructure improvement requirements include in part: construction of additional pasture space to better utilize the practice of stock rotation, renovation or reconstruction of several inadequate pens and paddocks housing several species of animals, and the upgrade/repair of the Animal Science Pavilion.
- The addition of several new permanent and annual crop varieties would benefit the AGNR students through greater learning potential from hands-on production as well as in support of a new Farm Store.
- The expansion of the heavy equipment technician shop and equipment storage area, and the addition of solar shade structures for equipment would further enhance the Agricultural Mechanics program and would significantly and positively influence the College Farm Laboratory.

Engaged faculty and staff are key to fully utilizing the Reedley College Farm Laboratory as an instructional tool as well as a community asset. The following are instrumental in accomplishing this effort:

- Plant Science Instructor
- Animal Science/Food Science Instructors
- Ag Mechanics Instructors
- Forestry and Natural Resources Instructors
- Adjunct Instructors
- Multi-discipline AGNR Instructional Technicians
- Reedley College Farm Laboratory Manager
- Dean of Agriculture and Natural Resources
- RC Administration
- College President
- SCCCD Chancellor and the Board of Trustees

The Reedley College Farm Laboratory relies on several sources of income to operate and improve its facilities and infrastructure. These include:

- Annual land lease payments from industry partners
- Contracted crop purchases
- Farm Instructional Budgets
- Various Federal and State Grants
- Industry partner donation
- Student enterprise projects
- On campus co-curricular budgets

The Reedley College Farm Laboratory is key to the development of curriculum within the high school community and is important to creating meaningful pathways for students in the Central Valley.

• The NR Program continues to collaborate with other CTE education entities including adding dualenrollment courses in wildland fire, chainsaw, career preparation, and forest ecology. These partners include Sequoia High School in Tulare County, Fresno Local Conservation Corps, and Valley Regional ROP.

HISTORY OF THE SCHOOL FARM LABORATORY The Early Days

The property on which the Reedley Community College campus sits, including the fame lab, was originally purchased from the 76 Land and Water Company by Thomas Law Reed, for whom Reedley was named. T.L. Reed came to Reedley in 1884, purchased the property, and built his homestead (house, barn, and various out buildings) on land that is now occupied by the orchard just north of the service entrance to the campus off of Reed Avenue. Mr. Reed was the first farmer to till the soil on this ranch. The major crop at the time was wheat. Reed went on to prosper as a farmer and ultimately purchased a total of 2,500 acres north and west of the current college lab property.

Reed was also instrumental in the creation of the Alta Irrigation District which brought irrigation water from the Kings River and forever changed the Reedley area. He was the first to advocate construction of a dam on the Kings River. Unfortunately he did not live to see this occur as he died in 1911 at the age of 64, more than 40 years before the completion of Pine Flat Dam.

Sam and John Reed, T.L.'s brothers, farmed the property until the late 1920's when its ownership was lost during the Great Depression.

Changing Times

The next owner of the Reed property was thought to be the Paloian family, which most likely acquired it during the early 1930's. These were transitional times for the area as tree fruit and grapes were becoming the major crops, and raisin production became very extensive. The Peloians farmed the entire property until 1954, when the college acquired the first 20 acres for a new campus. Prior to that time, beginning in 1926, college classes were held on the Reedley High School campus. In the years that followed, several acquisitions were made until 1968 when the campus encompasses 140 acres, with approximately 38 acres being occupied by farm laboratory. The original farm included the following:

Open Land 12 acres
Orchard 6 acres
Thompson Seedless Grapes 4 acres
Various Varieties Grapes 3 acres
Tree Fruit 2 acres
Citrus 1 acre

Balance-Bluffs, Roads, etc.

The northern boundary of the farm property was an extension of Parlier Avenue to the west. The Paloian family controlled the remaining 280 acres.

During the 1970's, area growers, staff, and administration met to plan for the future expansion of the farm lab. Many options were examined, including three off-campus parcels as possibilities for a new, expanded farm lab. The off-campus sites quickly discounted because of the distance from campus. The focus then was placed on the remaining T.L. Reed property controlled by the Peloian family. The committee identified four options ranging from 91 to 138 acres. Ultimately it was recommended to the Board of Trustees that the entire 280 acres be acquired because the other possibilities were all landlocked without access or a means for irrigation. On February 5, 1976 the Board approved the acquisition of the entire 280 acres and a substantial development budget that included the current ag mechanics building and animal science pavilion, along with funding for equipment purchases and modifications and improvements on the acreage. At the time of acquisition, the farm included:

Palomino Grapes 45 acres
Carrignane Grapes 60 acres
Thompson Seedless Grapes 70 acres
President Plums 18 acres
Sun Grand Nectarines 17 acres

Balance-Bluffs, Roads, River Bottom, Creek.

The District took possession of the property in October, 1977, and construction began on the two structures in the spring of 1978.

Historical Conclusion

It is our hope in presenting this brief history that it affords the reader a better understanding of how the farm laboratory fits into the LAND instructional programs, and gives some insight into where we have been and some focus on where we are going.

REEDLEY COLLEGE FARM LABORATORY YR 2018-2022 ACTION PLAN

INTRODUCTION

The Reedley College Farm Laboratory currently operates on 298 acres, including: 220 acres of arable land, 44 acres of riparian wetlands, and 34 acres dedicated to roads, structures, and miscellaneous. The Farm Laboratory facility, while primarily used for Reedley College Agriculture and Natural Resources (AGNR) instruction, crop production, and the support of Reedley College livestock, is also widely used by members of the community for various recreational activities such as walking, hiking, running, cycling, and horseback riding. Guided tours of the Farm Laboratory are provided upon request several times per year to groups such as State Center Trustees/Reedley College Administration, Reedley College Faculty & Classified Employees, High School Counselors, and Reedley College Student Groups.

The College Farm Laboratory is an important component of student success at Reedley College. Students enrolled in Plant & Soil Science courses receive instruction in all aspects of crop production using traditional and progressive techniques to achieve maximum yields while engaging in practices geared toward farm sustainability. Animal Science students are educated in forage and hay production used to sustain several Reedley College livestock species while learning important aspects of animal husbandry such as proper livestock rotation and nutrition selection. Forestry and Natural Resources students utilize the College Farm Laboratory to engage in riparian restoration (River Rangers), selectively removing nonnative vegetation species, and returning the Kings River and Wahtoke Creek sections to their natural state. Students enrolled in Agricultural Mechanics courses maintain and repair the various tractors and implements used on the College Farm Laboratory while honing valuable skills such as land preparation, planting, mechanical tillage, and harvest of traditional crops.

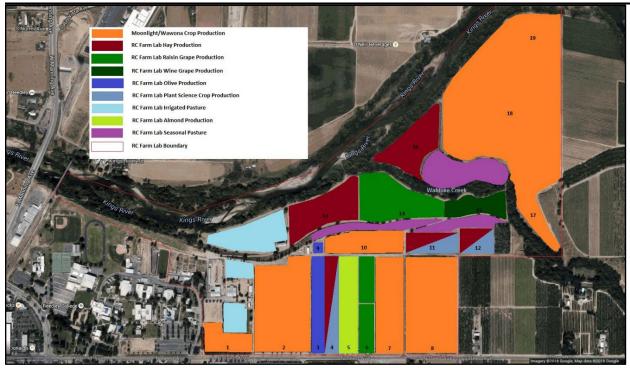


Figure 1. Aerial photo depicting the Reedley College Farm Laboratory with current land allotment.

REEDLEY COLLEGE

AGNR Farm Lab Staff and Student Employees manage 88 acres dedicated to Plant & Soil and Animal Sciences. Current land allocation is as follows:

Permanent Crops	
Thompson Seedless Raisin Grape	12 acres
Selma Pete Raisin Grape	5 acres
Syrah Wine Grape	2.4 acres
Pinot Gris Wine Grape	0.5 acres
Sangiovese Wine Grape	0.5 acres
Chardonnay	0.5 acres
Nonpareil/Supareil Almond	6.4 acres
Arbequina Olive	5.5 acres
Alfalfa	5.0 acres
Annual/Biennial/Perennial Crops	
Oat/Sudan grass/Hay Production	19.7 acres
Plant Science Demonstration Plot (Various crops)	5 acres
Pasture	
Irrigated	11.5 acres
Seasonal	14 acres

LEASED LAND

The Reedley College/SCCCD land lease contract with Moonlight and Wawona Packing Companies is binding through October 31, 2019 and is comprised of the following crops for a total allotment of 132 acres. These companies manage all operations of the following crops grown on Reedley College farmland:

2 acres

Permanent Crops	
August Flame Peach	19 acres
Zee Fire Nectarine	48 acres
Honey May Nectarine	30 acres
September Bright Nectarine	26 acres
Murcott Mandarin Oranges	7 acres

Tango Mandarin Oranges

CURRENT FARM LABORATORY PROJECTS

PG&E Riparian Restoration (Project A)

- Begin: 9/2017
- Objective: Restore riparian vegetative oak tree plantings along the Kings River AND Wahtoke Creek to reestablish land to a more natural state. Involves encroaching into the oak grove pasture some 70' inward to establish a greater area along the river for vegetation to flourish.
- 5% complete- Plans are still taking shape at this time, coordination amongst agencies and businesses are a work in progress as well. New additions to the pump that supplies water to the oak grove will be done including a 5,000 gallon holding tank to allow for drip and micro sprinkler irrigation to the new riparian project plantings. New waterline will be installed on the eastern end of the oak grove pasture with alfalfa valves to allow for flood irrigation of pasture, and new fence will be installed to allow for animals to graze as well. First day of physical work to site will be weekend of November 4th/5th 2017.
- Estimated completion: 1/2018



Figure 2. Aerial Photo of PG&E Work Location and Perimeters of Work Boundaries. Green area depicts where riparian restoration and tree replants will take place, black is overlay of perimeter of fence line for the pasture.

Farm Solar Project (Project B)

- Begin: 8/2017
- Objective: Installation of solar panels as part of a greater campus and district wide project to capture solar energy to reduce electrical costs.
- 10% complete- Trees have been cut near the wash rack, installation of panels and footings should begin with construction sometime in October.
- Estimated completion: 1/2018

Alfalfa Block Establishment (Project C)

- Begin: 7/2017
- Objective: Create a flood irrigated alfalfa block for animal science livestock consumption.
- 80% complete- Land has been fertilized for pre-seeding, seeding to take place in Mid-September.
- Estimated completion: 10/2017

Perimeter Fencing of Animal Science Area (Project D)

- Begin: 9/2017
- Objective: Create a new perimeter fence for animal science made of no climb fence and used oil pipe. Fence will replace all chain-link fence on the north end of the facility as well as replace the pastures on the west end of the facility.
- 5% complete- New pipe and no climb fence arrived in late August, fall semester employees are just beginning project at this time.
- Estimated completion: 7/2018



Figure 3. Aerial Photo depicting location of new perimeter fence line for the upper pasture.

Reedley College Community Garden Renovation (Project E)

- Began: 4/2016
- Objective: To consolidate the Reedley College Community Garden into twenty (20) plots each measuring 17' x 60'.
- 30% complete- Each plot will be equipped with a new irrigation system comprised of a spigot for hose watering as well as a 12-line manifold with an in-line filter, pressure regulator, and electric solenoid valve for drip irrigation capability. Additionally, the two pathways through the facility will be scraped and leveled and a 2" layer of decomposed granite will be laid down to ease walking. Finally, a tool shed will be relocated to the southeast corner of the facility and a walking gate to the Reedley College airstrip will be installed to facilitate parking once construction of the RMCHS facility effectively limits access to the garden via the east and west access points. All garden plots to be divided by railroad ties to give defined borders. Mini grant has been approved to help fund project.
- Estimated completion: 6/2018

Sprinkler Protection in Pole Barn Pastures (Project F)

- Corrections made to existing risers in field. Current risers are made of PVC which sunburn and are easily snapped by cattle in pastures. Replacement of all PVC risers with galvanized piping for added strength to reduce the number of repairs made to sprinkler lines over the course of the year. Control valves on the perimeter of the pasture to be enclosed in boxes, and wiring set up on an automatic timer in the pole barn. While setting up of electrical station at pole barn, flood lighting should also be added at this time to the pole barn.
- Cost: \$3,500
- Estimated completion 4/2018

New Farm Map/Aerial Photographs (Project G)

- No aerial photographs of the school farm have been taken since the 1970's. For all projects on the ground, the college has been relying on Google Maps and Google Earth for visual aids. New photographs can be taken from the inside of a plane to give an updated look from the sky of what the farm looks like now. Pictures can be printed and blown up for visual aids as needed if so desired. A benefit to these more recent pictures would be using Arc GIS and layers to map lines in the fields.
- Costs: Flight and Photography: Free. Photographs: \$300. Arc GIS/Layering: Free, in-house.
- Project estimated to begin 10/2017

PLANNED FARM LABORATORY PROJECTS

Eucalyptus Grove Removal, Seasonal Pasture Development (Project H)

- Removal of underutilized eucalyptus grove to allow for more seasonal grazing space, creates an additional space of 1.8 acres. Area is currently used solely for storage of materials at this time.
- Cost: Tree removal and leveling of block, installation of fencing approximately \$20,000.
- Estimated completion: 6/2019



Figure 4. Aerial Photo of where

eucalyptus grove to be removed is located.

Fieldhouse Modernization/Rehabilitation (Project I)

• Installation of new roof and electrical lights in the fieldhouse shop. Currently the fieldhouse has numerous leaks, where every rain event leads to puddles inside of the facility. A new roof will help make the building safer, and more usable even during the wet months. Electrical lights at this time are old and dated, when turned on initially and before the bulb has warmed up, the lights make a great deal of noise. Replacement of these lights would lead to an improvement in having light right away, as well as reduce electrical costs to the college.

• Cost: \$18,000

• Estimated completion: 4/2018\

Pavilion Modernization/Rehabilitation (Project J)

• Installation of new interior roof coating and electrical lights within the pavilion. Currently the pavilion has numerous leaks. With complete permanent repairs to the exterior roof, as well as a new coated spray on lining for the interior of the pavilion, the facility will take on a cleaner brighter feel than the decaying chicken wire insulation, providing a feel of what Fresno State's facilities presently are. This will also reduce the number of birds coming in to roost in the rafters of the building. New lights will provide better visual aid to students practicing inside of the indoor arena during later hours.

• Cost: \$35,000

• Estimated completion: 1/2019

Expansion/Creation of Storage Yard (Non-Wheeled Equipment) (Project K)

The limited space of the storage yard within the Agricultural Mechanic yard has caused for items

to be stored in tight conditions. Additional storage of non-wheeled farm implements to alleviate crowding in agricultural mechanic yard. Project would call for the removal of existing chain-link fence and expanding towards the south and the addition of 3" of DG or asphalt road base laid to help with the drainage and provide greater dust control.

- Cost: \$10,000 (Awaiting Kelly Fence)
- Construction estimated to begin: 11/2017



Figure 5. Aerial Photo of proposed new fence line for storage of non-wheeled farm implement equipment.

Cement Flooring of Pole Barn (Project L)

- The pole barn at this time consists of an uneven dirt footing. In order to reduce uneven setting of stacks as well as reducing rotting of the bottom level of bales stacked inside of the exposed barn, new concrete should be added to provide a better working barn for feed storage. New concrete will make it easier to clean the facility, as well as keep water away from the stored feed reducing waste. New 6" cement pad can help increase the elevation several inches to keep out any water that may accumulate in the area.
- Cost: Approximately \$18,000
- Construction estimated to begin in 8/2018

Woodshop Expansion (Project M)

- The wood shop in its current state has become too constricted for use as a classroom. In order to meet its intended use, the building needs to be modified by expanding to the south 20' in order to accommodate the workbenches and students. With the exterior wall moving 20' to the south there can be adequate room to install the wood planer and ventilation hood as well as large capacity air compressor that the building is in dire need of utilizing. At this time there is still a need to install 3 phase 440 Volt supplied power to the room so that these pieces of equipment can operate.
- Cost: TBD
- Construction estimated to begin 7/2019

Shade Awning for Forestry Chainsaw Shop (Project N)

- At this time there is a temporary shade structure for chainsaw shop students to work on chainsaws outdoors which is in a decrepit state. Ideally to give the students adequate cover from the elements a new awning would be constructed. New awning would need to measure 45' by 20'.
- Cost: TBD
- Construction estimated to begin 7/2019

Farm Road Improvements (Project O)

- Several roads on the farm are not paved which cause large amounts of dust, and sinkholes in the wet months making travel difficult. SC800 oil can be used to control dusty roads for several years as opposed to fully paving. Students frequently are shuttled on these unpaved roads, as well as farm employees while traveling to the pump to start water for the farm. Having a paved surface in these areas would make for safer travel to and from as well as reduce exposure to large amounts of dust kicked up.
- Cost: \$7,000
- Construction estimated to begin 10/2017



Figure 6. Aerial Photo of proposed new paved roads for farm.

Animal Science Unit Northern Expansion (Project P)

- Limited space for proper rotation of Reedley College/RMCHS Livestock used in instruction necessitates an expansion of the Animal Science Unit. The most suitable location for this expansion to occur is the stone fruit tree block directly to the north of Animal Science. The current contract with Moonlight/Wawona does not allow for removal of this block from production until October 31, 2019, at which time 17 acres will be removed from the lease. Two acres will be left as a buffer zone of the 19 available to take out of the lease. Of the 17 acres, approximately 10 acres would be used for expansion of the Animal Science Unit. In the expansion going north, a new paved road will be constructed as an entrance from Reed Avenue for the middle college students, an unimproved waiting lot would be installed in that area to allow for short-term students' parent parking while waiting for their children to care for their animals.
- An equine appropriate facility would be constructed in the west end of this block. An irrigated
 pasture, constructed from welded oil-pipe and no-climb panels, would be installed in the center of
 the block; and an area for the housing of student project market animals for the middle college
 would be located on the most eastern end.
- Cost: Approximately \$180,000. Price subject to final pasture and covered animal facility configuration.
- Estimated start of construction: November 2019



Figure 7. Aerial photo depicting the Animal Science Unit Northern Expansion Area as well as Student Enterprise Block.

Reedley College Student Enterprise Block (Project Q)

- A 7-acre block dedicated to crops grown in support of Student Enterprise projects would be obtained by removal of the stone fruit block just south of the 5-acre grove of new olives. These trees would be removed from the contract currently in effect with Moonlight/Wawona. This contract expires on October 31, 2019. Additionally, two acres on the east side of the Animal Science Unit expansion area would remain in nectarine production but would be removed from the contract as well. Crops to be grown would be determined by the Plant Science Instructor according to student interest, the Farm Manager according to market/seasonal demand, and interest from students and industry partners in establishing projects that would benefit the College Farm Laboratory and the various agricultural industries that AGNR collaborates with. Programs that would potentially utilize this block would be Plant Science and Mechanized Ag for instruction and Ag Business and Farm for production and marketing of finished products.
- Cost: \$5,000 for tree removal. Additional costs will vary dependent upon types of crops planted.
- Estimated start of construction: November 2019

Reedley College Farm Market (Project R)

• With the passage of Measure C, funding will soon become available for the construction of a new Agricultural Center on the Reedley College campus. A Farm Market is projected to be built within the center that will highlight student enterprise projects from the many programs within AGNR. Examples of current and planned products that could be marketed through this facility through Spring and Fall seasonal sales are:

Product	Availability
RC Wine (Red, White, & Blends)	2016
RC Olive Oil (Virgin and Flavor-infused)	2016
RC Balsamic Vinegar (Blends)	2017
RC Almonds	2017
RC Christmas Hams	2017
RC Spring Lambs	2018
RC Cheese	2017
RC Plant Sales (Poinsettias, vegetables, etc.)	2016
RC Finished Forestry Products (bar/table tops,	2017
Picnic benches, garden sheds, planter boxes, etc.)	
RC Firewood	2016

• Estimated start of Reedley College Farm Market construction: 2020

Animal Science/College Farm Laboratory East Entrance (Project S)

- Construction of a dedicated entrance to facilitate the care and feeding of student market animals in the Animal Science Unit expansion area. A stout and aesthetic gate would be installed at the intersection of Reed and Parlier Avenues to provide access to Reedley College/RMCHS students and their parents. To make this project viable, relocation of a single palm tree 20' to the north would be necessary to provide direct access to the entrance. The City of Reedley would be approached about configuring the Reed/Parlier intersection into a 4-way stop to mitigate traffic congestion due to northbound vehicles waiting to turn into the facility. Additionally, SCCCD Operations would be approached about improving 350' of the road leading west onto Reedley College property.
- Cost: Dependent on District Operations requirements for road improvement.
- Estimated start of construction: January 2019



Figure 8. Photo depicting the proposed east Animal Science/College Farm Laboratory entrance at the intersection of Reed and Parlier Avenues.

FARM LAB PROJECT COMPLETION TIMELINE SUMMARIES

2017: Project C

2018: Projects A, B, D, E, F, G, I, K, O

2019: Projects: H, J, L, N

2020: Project M, Q, S

2021: Projects P, R

2022:

FARM LABORATORY ANNUAL EVENTS

January: Mid-winter FFA Field Day

March: FARMS Leadership Day

April: Spring FFA Field Day; Ag Backers Council Pinot & Pints Fundraiser

May: Spring Semester Ends; Summer Student Employees Begin

June: Summer Student Employees AGNR Tasks

July: Wonderful Ag Career Camp; Summer Student Employees AGNR Tasks

August: Summer Student Employees AGNR Tasks

October: Fresno Fair Collegiate Livestock Competition; AMA Long Eared Bonanza Mule Show,

Reedley College IHSA Home Competition, New Member FFA Field Day

November: Ag Backers Council RC Golf Tournament Fundraiser; Opening/Closing Ceremonies

Contest; Novice Showmanship Competition, Bob Frisch Memorial Ride

December: Fall Semester Ends