

Foothills Agriculture Newsletter

September 1, 2026



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Resources & Opportunities

- **California Certified Organic Farmers** supports farmers and food businesses through organic, regenerative, food safety, and grass-fed certification; organic transition grants and technical assistance; hardship assistance grants; marketing resources and promotion; a searchable business directory to connect producers with buyers; a regional chapter system that connects members with one another; and state and federal advocacy that advances organic agriculture and represents the needs of our members. Learn more at ccof.org
- **Sierra Harvest** is a non-profit that works to reform the regional food system. They offer services and resources to help farmers and ranchers succeed, including: Ag Skills Workshops, a Farm Business Course, a Mentorship Program, grant writing assistance for producers, a land access platform, and more! Visit their website to learn more. Inquiries can be directed to farminstitute@sierraharvest.org.
- **Looking to improve wildlife habitat on your property?** U.S. Fish & Wildlife has a program for you! [Check out their flyer](#), [website](#), or email Matt Hammam at Matt_Hammam@fws.gov or call him at (530) 889-2301.
- **Do you purchase untreated PCWA canal water?** You can be reimbursed for a water storage tank! [Learn more here](#).
- Placer RCD is offering a **FREE Ag Chipping Program** to Placer County farmers and ranchers. Learn more and submit your service request [here](#).
- **Diversified Vegetable & Fruit Tree Farmers:** UC Davis graduate student Star Beltman is seeking participants for her collaborative research project. Participants will receive compensation and will support with development of state policy and farm support programs. [Learn more](#).
- **Stone Fruit Growers:** Community Alliance with Family Farmers (CAFF) is launching a project on Sustainable Pest Management (SPM) in our region. For more information, [check out their flyer](#), [website](#) or email Moet Takata at moet@caff.org.

Upcoming Events

**Field Day at Sierra Foothill Research and Extension Center –
September 26th from 8:00 – 3:00 in Browns Valley, CA.**

Join UC Cooperative Extension Specialists and Advisors for a day in the field to learn about their current research projects. We will cover a wide variety of topics including oak regeneration, soil amendments, climate change, and beef cattle health. Cost is \$15 per person and includes a BBQ lunch! Registration link: <https://link.ucanr.edu/sfrec2026>

FIELD DAY at SFREC

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September 26th
Browns Valley, CA

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Join us for a day in the field to learn from UC Specialists and Advisors about their current research projects.

Topics include

- Beef cattle
- Soil amendments
- Climate change
- Oaks

\$15 per person - includes lunch

To register, visit:

<https://link.ucanr.edu/sfrec2026>



Seasonal Management Tips

What should you be thinking about on your farm, ranch, or property for September through November? In addition to the considerations below, we have recently received calls regarding leafhoppers; russet and broad mites; thrips; seedling damping-off; Fusarium in figs and strawberries; corn earworm; olive fruit fly; and black fig fly.

Cover crops: After harvest, cover crops can be established in fields, vineyards, and orchards. Consult the cover-crop article in this newsletter for more information.

Soil and leaf-tissue testing: Fall is a good time to collect soil samples for nutrient-management planning. It may be late for in-season leaf-tissue testing, but tissue testing can still be useful for certain crops and for planning next season's fertility program.

Pest, disease, and weed management: Continue scouting and monitoring after harvest and into winter. If a pest, disease, or weed has been a recurring issue, use the end of the season to develop an IPM plan for next year—especially where sanitation, dormant-season actions, cultural practices, or other preventive measures can be completed before the next growing season. Correctly identifying the issue is pivotal.

Heat and sun injury: Continue managing heat injury and sunscald by retaining sufficient canopy, preventing irrigation swings, and using shade cloth where feasible. Kaolin-clay products may be worth evaluating for your crop and market, especially where fruit sunburn is recurrent; consider harvest, residue, and buyer requirements before applying.

Seasonal Management Tips

Buffalobur Spotted in the Foothills!

We have recently seen Buffalobur in Placer County. From Washington State University Extension: Buffalobur (*Solanum rostratum*) is an exceptionally spiny annual plant growing about two feet high. The alternate leaves have deep, rounded lobes and are two to five inches long. The leaves are prickly underneath on the petiole, midrib, and veins. The main stem of the plant is robust, with numerous yellow spines. Yellow flowers about an inch wide are borne throughout the summer. The flowers are roughly star-shaped, with five lobes. The fruit is a 1/2-inch berry that is completely enclosed in the spiny flower base. Each spiny seed capsule contains many small seeds. Buffalobur is very drought-resistant.

Note: This plant is highly invasive, challenging to remove, and toxic to livestock. If you are beginning to see occurrences of buffalobur on your property, please take steps to hand pull

(wearing thick gloves) and dispose of in a black trash bag. DO NOT compost or burn as the seeds can spread easily and remain viable in the soil for a number of years.



Seasonal Management Tips

Irrigation: Maintain adequate soil moisture but avoid overirrigation. Adjust irrigation schedules accordingly with seasonal weather patterns. Inspect the irrigation system and repair issues before the next growing season.

Gopher management: Late fall through early winter can be a good time to manage gopher. Populations may be lower and it's before spring breeding.

Recordkeeping: Don't overlook this practice. Document this season's challenges, including pests, diseases, irrigation, weeds, weather, and fertility concerns. Record yield data, harvest timing, variety observations, and field issues.

Online Resources:

- [UC IPM Pest Management Guidelines](#): This UC IPM webpage lets you select a crop and access crop-specific pest management information, including Year-Round IPM Programs where available.
- [SacValleyOrchards.com](#) This UC-affiliated resource primarily focuses on nut-crop production but provides timely management considerations, research updates, newsletters, and practical articles that may be useful to growers in our region.
- [Fruit & Nut Center](#)

These management considerations are intended to be a dynamic resource that will be updated and expanded over time. If you would like assistance interpreting leaf or soil-test results, selecting cover crops, identifying pests or diseases, or contributing ideas for future timely management topics, please contact our team. Thank you!

Seasonal Management Tips

Calving Season Toolbox

Fall calving is in full swing for many ranchers in the foothills. While this can be one of the most exciting times of the year, there can also be a lot to manage! Not only are there concerns about potential birthing difficulties, predators, and managing calving checks, but also considering the nutritional management of cows and heifers so that they breed back on time. Below are some basic tips to help you feel prepared for calving season:

1) The calving tool kit, what's inside?

Start with a lightweight toolbox that you can keep in your truck or attached to your 4-wheeler for the next couple of months. This keeps your tools clean, organized, and saves time running back to the barn if a situation arises. Inside, start with basic supplies including lube, calving chains, OB gloves, dish soap or disinfectant, calf tube, colostrum replacer, iodine solution, syringes, needles, and medications that align with your herd health protocol as determined by your veterinarian. You can also include your ID tools such as tags, taggers, pens, and calving record book. Everyone's toolbox will look a little different, and it will likely change over time based on the needs of your ranch.



2) Cow Nutrition: A cow's greatest energy demand occurs about 60 days after calving, when milk production is at its peak. This is also typically when breeding season starts, and in order to cycle and increase chances of successful breeding, she needs to have adequate energy stores. There are a lot of demands on a cow at this time as they are still recovering from calving, lactating, and preparing for breeding all at once.

Seasonal Management Tips

It is important to assess your cows body condition score (BCS; a tool used to visually assess fat cover/energy reserves) as early as 90 days before calving and throughout the postpartum interval to adjust for any nutritional changes you may need to make to keep weight on the cows. It is suggested that mature cows are at a BCS of 5 at calving, and heifers are around a 6, as they are still growing themselves and will require more energy stores to recover from calving. If body condition scoring is a new tool to you, [check out this visual guide](#) and additional information from Oklahoma State University.

Articles

Yikes! Fire Blight! **Ben Baldi, UCCE**

As many growers across our region noticed, this was a bad year for fire blight! The warm March followed by spring rains led to a perfect storm for an alarming fire blight explosion.

What is Fire Blight?

Fire blight is a bacterial disease caused by the pathogen *Erwinia amylovora* and affects members of the rose family (Rosaceae). Major crops in our region that are susceptible include apples, quince, loquat, crabapples, with the most serious infections on pears. Apple susceptibility depends on variety, rootstock, vigor, and location.

The bacterium lives in stem and branch cankers (diseased wood infections) that ooze in the springtime. Wind, rain, insects, and moisture during bloom will spread the bacteria to spring blossoms and new growth, creating the characteristic blossom blights and the “Shepard’s

Articles

crook” shoot blights. These blight strikes develop into dead, scorched-like symptoms giving the pathogen its namesake.

What’s the big deal?

Diseased blossoms decrease fruit production. Strikes will grow into stems and branches where they will become overwintering cankers and serve as a source of inoculum for years to come. A canker can cause entire limb dieback and potential tree mortality if infection is established in the tree trunk.

What do we do throughout the year to manage?

In the fall, you may start to notice red foliage developing on some branches. This may be an indication that fire blight has made its way



Shepherd's Crook.



Blossom blight on pear. / Kane Russell

Articles

into the branches and could be removed before it overwinters. During the winter, monitor your orchard for clinging, “scorched” dead leaves and fruit which will need to be pruned out to reduce inoculum. Pruning 8–12” underneath the end of the symptoms is recommended and consider sterilizing pruners with a disinfectant (1 part household bleach: 10 parts water). Whenever you prune out infected material it is best to burn, bury, or remove from site. This can also be a good time to check for branch cankers to remove.

Dormant winter sprays with oils have been used to mitigate staggered “rattail” blooms in some pear production operations. Insufficient chill hours and certain crop varieties can contribute to rattail blooms. Although it is not necessarily an accepted fire blight practice, management techniques that create more compact blooms may be something to consider for shortening fire blight infection windows.

As winter turns into spring, a bacterial ooze will be a sign of cankers. This is a good time to look for cankers and prune from the orchard. Ensuring you are making pruning cuts 12–18” past diseased wood/cankers is important this time of year because the bacteria start to rapidly grow. A canker on major fruit bearing wood can be salvaged by scraping disease out of a non-girdled branch but can be labor intensive and not practical. Removing as many cankers as possible is very useful and should not be overlooked for management. Prune during dry weather and, ideally, with dry days after.

Critical time for fire blight control is during the pre-bloom and bloom period with several techniques to help mitigate. Extended bloom and varieties that produce “rattail” or secondary blooms, are at higher risks for fire blight outbreak.

- **Cultural Methods:** Utilize techniques to keep humidity down. Try to have full soil water profile before bloom and to avoid irrigation during bloom. Continue cutting out oozing cankers.

Articles



Flaking and cracking canker.



Red foliage. Not always from fire blight but could be an indication of infection.



Shoot strike. / Kane Russell

Articles

- **Spray programs:** Blossom applications can be very useful with the first application being critical. Several disease prediction models exist for scheduling more effective spray timings. Depending on the model, you will need to start monitoring temperature at bloom or before bloom. The UC Model is relatively simple and recommends first spray when bloom and mean temperatures reach 62°F in March, 60°F in April, or 58°F in May, then continue every 3–5 days until end of rattail bloom. Be aware of fruit russeting that can happen on fruit from late bloom sprays with certain chemicals.

After bloom, it continues to be important to monitor your orchard regularly to promptly remove strikes and cankers. Maintain tree vigor by avoiding over-irrigation and excessive fertilization, preventing heavy pruning that stimulates growth, and using less vigorous rootstocks. In conclusion:

Fire blight management depends on utilizing several practices together: maintaining plant vigor, timed blossom sprays, and, most importantly, removing strikes and cankers in a timely manner.

If you are interested in discussing a model approach to spray timing, identifying cankers, compact bloom, or other questions related to fire blight management, please don't hesitate to reach out (btbaldi@ucanr.edu or 508-713-2330).

Books:

Integrated Pest Management for Apples and Pears
Pear Production and Handling Manual

Articles

Farmer Listening Session Recap Dara Noonan, Placer RCD

In June, UC Cooperative Extension (UCCE), Community Alliance with Family Farms (CAFF), and the Placer Resource Conservation District (Placer RCD) hosted a farmer listening session at the County of Placer Health and Human Services building in Auburn. Roughly 25 farmers from Placer and Nevada counties attended to discuss topics including fertilization, irrigation, the impacts of climate extremes on agriculture, and pest management. Growers in attendance were diverse in the crop systems and scales of their operations, with the majority of growers operating small to medium sized farms. Attendees had diversified vegetables, almonds, walnuts, citrus, stone fruit, cut flowers, and vineyards, and some growers in attendance were organic. The goal of the listening session was to better understand the challenges farmers are facing in Placer and Nevada counties, and to determine how researchers, public agencies, and policy advocates can work to address these challenges.

Despite the high level of diversity in crop system and scale across growers' operations, some common themes emerged in discussion. In all the breakout groups, the topic of labor costs and sourcing arose. Growers spoke about the cost of labor, challenges in sourcing labor, the rigid regulatory environment around labor, and the difficulty in housing access for many agricultural laborers. Growers emphasized how the barrier to accessing affordable and consistent labor puts strain on their operations. With this, many growers were interested in technology that can help reduce labor costs and increase input efficiency, such as moisture sensors and drones. Growers also shared concerns about increasing urban development proximal to their farms and expressed a desire for improved community education about the importance of agriculture in their communities.

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Highlights from Breakout Groups

Irrigation

Main Challenges:

- Water quality – canal water often dirty with high sediment and algae content
- Substantial time and effort to clean filters every day, sometimes multiple times a day
- Topographic and geographic challenges arising from system variability across the landscape – gravity fed systems, pump systems, pressure, ditch vs well, etc. all presenting different challenges
- Concerns with water agency cost increases in recent years, water increasingly becoming a financial burden
- Water delivery from canals at times unreliable, with some unexpected service delays or shut offs happening at times that are major concerns for growers, like hot days in summer

Current Practices and Future Opportunities

- Most growers made irrigation decisions based on observations and historical practices
- Strong interest in integrating more advanced irrigation systems to decrease labor and increase water use efficiency (timers, moisture sensors)

Pest Management

Main Challenges:

- Top pest concerns this year: Citricola scale, powdery mildew, fire blight, rodents (gophers, ground squirrels, etc.)
- Pressure increasing as urban development shifts habitat availability for pests on the landscape

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- Variable climate conditions bringing in new weeds and unfamiliar, tough to diagnose diseases and pests
- Access to equipment, labor, and management tools limited by cost, distance from suppliers, and topography

Future Opportunities

- Utilizing technical assistance providers to help determine what pest/disease is causing issues and how to approach management
- More peer-to-peer learning, how are other growers approaching pest control?

Climate Extremes

Main Challenges:

- Climate increasingly unpredictable, challenging to adjust to conditions like extreme heat, wildfires, wind, and smoke, torrential rain, cold snaps, drought, challenging to anticipate shifting crop phenology – all of the above causing crop damage and/or loss

Current Approaches and Future Opportunities:

- Some growers spoke about diversification of crops to increase resilience to climate extremes and unpredictability
- Incorporation of technologies like shade cloth, high tunnels, ET/weather monitor alert systems, improved irrigation systems, etc.
- Improving soil health through composting, cover crops, mulching, grazing, and intercropping to make crops healthier and more hardy
- Local field demonstration days to showcase how farms in Placer and Nevada counties are adapting to an unpredictable climate

Fertilization and Soil Health

Main Challenges:

- Concerns about soil health, especially when erosion and loss of topsoil is occurring

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- Costs of fertilizers and the labor required to apply fertilizers
- Accessibility of soil testing and tissue testing results

Current Approaches and Future Opportunities:

- Growers are using a diversity of fertilizers, from conventional granular and foliar fertilizers to kelp, compost, biochar, and fish emulsion
- Improving education about soil testing – some growers lowering input costs and increasing fertilization efficiency through adjusting application amounts according to soil and/or tissue test results

Takeaways

Growers in Placer and Nevada counties identified rising labor and input costs, water affordability and reliability, and increasingly unpredictable climate conditions as shared challenges across many farming systems. Participants expressed interest in research and technical assistance focused on irrigation efficiency, soil health, and labor-saving technologies, as well as expanded opportunities for peer-to-peer learning and field demonstrations. UCCE, Placer RCD, and CAFF organizers wish to extend their gratitude to all attendees and will use the insights gathered during the listening session to help guide future research, educational programming, technical assistance, and policy engagement that better support agriculture in the region.

Articles

Cover Crops: What to Plant This Fall in Nevada and Placer Counties **Charlie McIntosh, Nevada County RCD**

Fall-planted cover crops can be an excellent tool for growers in the Sierra Nevada Foothills to prevent soil erosion and provide additional benefits. Cover crops are crops grown for the purpose of improving soil, providing fertility, controlling weeds, and/or as a part of an integrated pest management plan. Commonly referred to as green manures, living covers, or catch-crops. Cover crops are generally not marketed as cash-crops but used as a management tool between cropping cycles. Cover crops can add value as part of a crop rotation plan and/or for livestock integration into a cropping system.

Why Grow Cover Crops?

Improve Soil Health

Bare exposed soil is vulnerable to the erosive forces of wind and water including rain impact and soil runoff with cover crop leaves creating a physical barrier minimizing soil displacement. Roots open channels in soil that increase water infiltration and reduce runoff. The dense fibrous root systems of many cover crops help to stabilize topsoil by holding together soil particles. As cover crops grow, biomass accumulates both above and below ground, which can be returned to the soil as organic matter; providing nutrients and habitat to soil organisms. Living plant roots excrete sugar-like compounds called root exudates that support the proliferation of soil biology, contributing to soil organic matter, nutrient cycling, and soil aggregation.

Manage Nutrients

When fertilizers (or compost) are applied in excess, mobile nutrients like nitrogen can be lost to leaching during seasonal rains. This process has

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led to groundwater contamination with nitrates in many areas of California and is a growing concern for rural agricultural communities. Actively growing cover crops can use excess nutrients and store them in plant tissues. When a cover crop is terminated, those nutrients are released through decomposition, making them more plant available for subsequent crops. Some deep rooted cover crops can bring nutrients from deeper in the soil profile and make them available in the top soil as they decompose.

Cover crops in the legume (pea/bean) family form a symbiotic association with Rhizobia bacteria that live in nodules on their roots and fix atmospheric nitrogen into available forms; ammonia. These nitrogen-fixing bacteria are often present in healthy soils along with other nitrogen cycling microorganisms, but it is highly recommended to apply inoculants whenever nitrogen fixation is a primary goal. Legumes are often sold as "pre-inoculated" seed, but inoculant liquids and powders are also available. Note, be sure to match the cover crop species to the correct inoculant to maximize nitrogen fixation potential.

Reduce Weed Pressure

Cover crops compete with weeds for above and below-ground resources like sunlight, water, nutrients, and space. Actively growing cover crops can also suppress weeds through modifying the soil microclimate and/or releasing allelopathic compounds that suppress weed seed germination or growth. After termination, cover crop residues can provide additional weed suppression as a layer of mulch covering the soil. This is often accomplished by "crimping" cover crops or cutting at the base of the plants and laying down stalks in a thick layer on the soil surface. Quick germination, rapid growth, high biomass accumulation, and formation of a closed canopy are all characteristics of cover crops that can effectively suppress weeds.

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Integrated Pest Management

Cover crops can be used to disrupt pest and disease cycles in crop rotations and grown to support natural pest predators. Mustard family cover crops have even been used to suppress root-feeding nematodes and some soil-borne diseases, reducing the economic impact on subsequent crops. Many cover crops produce flowers, pollen, and nectar that attract and support pollinators as well as other beneficial insects. Providing habitat and forage for natural pest predators and parasitoids can reduce pest populations and is a common strategy included in integrated pest management plans. Cover crops that are allowed to flower can also become a nuisance if allowed to go to seed. It is important to think about cover crops as a part of an integrated pest and disease management plan, rather than as a single solution.

When to Plant Cover Crops?

Cover crops are often divided into two groups based on the season when they germinate and grow. "Cool season" is often used to describe species that germinate and grow well in the fall and spring while "warm season" is used to describe species that grow during the summer.

In the Sierra Nevada Foothills, we often get two windows to plant cool season cover crops; in the fall (August – October) and spring (January – March). Keep in mind that cover crops need to get well established prior to the onset of cold weather, which can stunt or kill small plants. The limited hours of sunlight from late-October through January/February make it challenging to germinate many species and can slow the growth of established plants to a standstill for many weeks around the winter solstice. As day length increases and soil temperatures begin to warm in late winter, new seeds can be sown and established plantings will often initiate a new flush of growth into spring. There is always a risk of planting too late in the fall or too early in the spring with frost dates becoming

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more difficult to predict and false spring weather showing up in the middle of winter.

Strategies for Success

Prepare the Seedbed

Treat cover crops like any other field crop. Clear the area of weeds/debris to reduce competition and expose soil. Loosen soil with light tillage or shallow cultivation to break the soil crust and expose bare soil. Ensure good seed-to-soil contact by using a seed drill, planting in furrows, or lightly cultivating (raking) after seeding. Covering seed with a thin mulch layer and providing consistent moisture can improve germination to create an even stand. Seed drills can be used to directly seed into weeds and crop residues. If soils are compacted, cover crop success may benefit from subsoiling, broadforking, or ripping.

Sowing & Seeding

Apply seed at appropriate application rate to prevent competition amongst cover crop, increase vigor, and create even stand. Applying too little will lead to patchy stands that are prone to weed pressure..

Consider sowing large and small seeds separately since seed size can play a role in even distribution. Small seeds can be challenging to spread over large areas, and are often over- applied. Try mixing small seeds with rice hulls or sand to prevent all of the seed from dropping in a small area.

Cover crop seeds can be sown using broadcast spreaders, push seeders, and seed drills of varying design and capacity, including hand operated tools and tractor mounted implements. Small areas can often be seeded by hand directly from a bag or bucket.

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Nevada County Resource Conservation District offers a tractor-operated **Min-Till Seed Drill** (35 HP tractor required) as well as a hand-operated **Seed Spreader** through their Tool Lending Program. More information is available on the NCRCD website.

Termination Strategies

Before planting, make sure to plan for how a cover crop will be terminated. Allowing cover crops to go to seed can create another weed to manage. This can be especially challenging if a cover crop is being grown for flowers that support pollinators and beneficial insects. Close monitoring of the growth stage is critical. This may involve mowing or string trimming, crimping, grazing, or herbicide.

Mowing is often used when cover crops are tilled back into soil. Flail mowers can reduce particle size of cover crops helping residues decompose more readily. In general, residues left on the surface act as a mulch and add little nutrients back to the soil. Incorporated (tilled) residues will decompose rapidly making nutrients more available. The speed of residue decomposition influences the nutrient release curve and availability so timing of crop termination is important if cover crops are being used for fertility.

Crimping can be used to turn cover crops into a layer of mulch that is left on the soil surface to suppress weeds for the subsequent crop. For success with crimping, stems must be sufficiently crushed to stop growth otherwise cover crops can continue to grow, flower, and set seed competing with the growing crop and possibly increasing weed pressure later in the season.

Grazing effectively turns cover crops into a forage for livestock. Note that manures from grazing cover crops do not actually add additional nutrients beyond what was already in the cover crop unless grazers are being supplemented with other feed. Some portion of the nutrients in

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the cover crop is used to grow the animal. Some cover crop species can be toxic to livestock, especially in high-doses (i.e. hairy vetch, fescue, and brassica species). Always consider the forage quality of your cover crop before choosing to terminate with grazing.

For more information about cover crops:

- [UCCE – Cover Crops for the Sierra Nevada Foothills](#)
- [USDA SARE – Managing Cover Crops Profitably, 3rd Edition](#)
- [UC SAREP Cover Crops Database](#)
- [UCANR – California Cover Crops Resources](#)
- [USDA NRCS – California Cover Crop Chart](#)
- [Western Cover Crops Council](#)
- [Precision Sustainable Agriculture – Cover Crop Selector](#)

Cool Season Legumes

Common Name	N-Fix (#/acre)	Biomass (#/acre)	Weed Control	Pollinator Habitat	Plant Height	Seed (#/acre)
Field Pea	150	6,000 – 8,500	fair	yes	20 – 28"	50
Common Vetch	150 – 200	8,000 – 9,000	very good	yes	24"	15
Hairy Vetch	100 – 150	4,300 – 7,000	very good	yes	12 – 20"	15
Purple Vetch	50 – 200	3,000 – 7,000	very good	yes	23"	15
Wolly Pod Vetch	100 – 300	8,000	very good	yes	18 – 27"	25
Fava (Bell) Bean	90 – 200	up to 80,000	fair	yes	24 – 72"	80
Lupine	ND	ND	ND	yes	8 – 47"	ND
Balansa Clover	100+	< 15,500	very good	yes	< 24"	2.2 – 4.4
Berseem Clover	100 – 200	< 15,500	very good	yes	< 24"	8 – 10
Burclover	50 – 125	2,000 – 8,000	good	yes	4 – 24"	10
Crimson Clover	70 -150	4,500 – 5,000	good	yes	12 – 20"	7 – 10
Persian Clover	70 -150	~ 3,500	good	yes	10 – 24"	5
Red Clover	75 – 100	4,000 – 8,000	good	yes	12 – 30"	4
Rose Clover	50 - 100	< 6,200	good	yes	6 – 18"	7
Subterranean Clover	75 – 200	5,000 – 9,600	very good	yes	6 – 15"	25
White Clover	75 – 150	2,000 – 4,000	good	yes	8 – 12"	2 – 3

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Cool Season Grasses

Common Name	Biomass (#/acre)	Erosion Control	Weed Control	Nutrient Capture	Plant Height	Seed (#/acre)
Annual Ryegrass	4,700 – 8,500	very good	good	good	24 – 48"	4.4 – 8.8
Annual Fescue	2,000 – 3,500	very good	good	good	10 – 20"	6 – 10
Barley	6,800 – 12,900	very good	good	good	24 – 48"	60 – 90
Blando Brome	up to 9,500	very good	good	good	8 – 24"	5 – 10
California Brome	1,000 – 2,000	very good	ND	good	12 – 36"	10 – 20
Cereal Rye	4,000 – 10,000	very good	very good	very good	36 – 72"	60 – 90
Oats	8,000 – 12,000	good	very good	good	24 – 60"	60 – 90
Triticale	2,000–5,000	very good	good	good	36 – 60"	80
Winter Wheat	4,500 - 12,500	very good	good	good	36 – 48"	50 – 100

Cool Season Broadleaf

Common Name	Biomass (#/acre)	Weed Control	Reduce Compaction	IPM	Pollinator Habitat	Plant Height	Seed #/acre
Brown Mustard	8,500 – 12,000	good	very good	nematode/soil	yes	36 – 72"	9 – 18
Black Mustard	8,500 – 12,000	good	very good	nematode/soil	yes	36 – 72"	9 – 18
Field Mustard	8,500 – 12,000	good	very good	nematode/soil	yes	12 – 60"	6 – 12
Turnip, Forage	~ 8,000	good	good	nematode/soil	yes	12 – 36"	6 – 12
Radish, Tillage	~ 8,000	good	very good	nematode/soil	yes	24 – 36"	10 - 20
White Mustard	8,500 – 12,000	good	very good	nematode/soil	yes	36 – 72"	10
Flax	ND	ND	ND	ND	yes	12 – 48"	10 – 20
Lacey Phacelia	3,300 – 6,000	good	ND	ND	yes	12 – 36"	7 - 18
CA Poppy	ND	ND	ND	ND	yes	6 – 24"	4 – 8

Thank You!
Previous Editions

