



## USDA Climate-Smart Grant Guidebook 2024



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# Introduction & FAQs

## **Conservation Cover**

## Contact Info & References

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#### Introduction & FAQs

In 2023, Blue Diamond was awarded a five-year grant from the USDA for \$45 million to support growers implementing climate-smart farming activities. This voluntary program allows Blue Diamond member growers or those who farm on a Blue Diamond orchard to <u>receive an incentive payment and no cost plants or seeds</u> when implementing one or more of the following activities after program launch (**Application opens May 1–June 30**):

Conservation Cover, "Bee Pasture"

#### ELIGIBLE PRACTICES

Cover Crops



MATERIAL COSTS

Up to \$35/acre\*

**No cost**, seeds provided by Project *Apis m*.

**IMPLEMENTATION INCENTIVE\*** 

**No cost**, seeds provided by Project *Apis m*.

Up to \$50/acre\*

Up to \$8/linear foot\*

Pollinator Partnership

**No cost**, plants provided by

Hedgerows

#### IMPLEMENTATION INCENTIVE EXAMPLES

Cover crops planted on at least every other row of a 100-acre orchard: ≤ \$3,500 Conservation cover planted on 4% of 100 acres (primarily on idle or fallow land outside of orchards): ≤ \$200 Hedgerows planted around an orchard in a 300 foot row: ≤ \$2,400

#### What is required?

- 1. Participation in Blue Diamond's Orchard Stewardship Incentive Program (OSIP) for the 2023 crop year <u>bluediamondarowers.com/forms/</u>
- 2. Registration of your farm and orchards with the USDA Farm Service Agency <u>offices.sc.egov.usda.gov/locator/</u> <u>app?state=ca&agency=fsa</u>
- 3. A completed application, all requested materials, and approval from Blue Diamond (*note*: you will be notified when we receive your application and when review is complete)
- 4. Proof of implementation to show you have completed the activity
- 5. Adherence to all practice program requirements and rules (see link to guide on the right)

#### Where do I learn more and how do I sign up?

• More information can be found on the Blue Diamond Growers webpage under Grower Resources > USDA Climate-Smart Grant, or

bluediamondgrowers.com/usda-climate-smart-grant

- The application link is located at <u>bit.ly/bdg-csg</u>
- Email jbains@bdgrowers.com or contact your Regional Manager with additional questions. <u>bluediamondgrowers.com/meet-your-partners/</u>

## How many of these practices can l implement on how many acres?

A grower can participate in all activities offered—there is no limit on the number of practices one grower can implement. Acreage allowable for this program varies by practice, plant material, and funding availability. Growers will be approved up to a defined number of acres (depending on the activity) and then approved for additional acreage upon further review. The funding amounts are on a first-come, first-served basis, and Blue Diamond will support as many acres as possible until funding is exhausted. Please review the "Rules and Regulations" for more details on the Blue Diamond Growers webpage: <u>bit.ly/bdg-csg</u>

#### Who is eligible?

All almond orchards with a Blue Diamond Crop Agency Agreement contract are eligible to participate. This means an owner or renter will be eligible if the orchard has a Blue Diamond contract. The orchard must currently be planted to almonds.

#### What is the process to apply and participate?

The grower (person implementing the practice) must apply to Blue Diamond and be approved for the funding **prior** to practice implementation. The process is as follows:

- 1. Blue Diamond application review and approval for participation
- 2. Grower to receive technical assistance on implementation, seeds or plants, and guidance for proof of practice implementation
- 3. Grower implements practice
- 4. Grower submits proof of practice implementation
- 5. Grower is then reimbursed for implementation costs at the qualified incentive rate

The application is available here: <u>bit.ly/bdg-csg</u>

#### How and when will reimbursements be administered?

Reimbursements will be sent to growers after proof of implementation is provided to Blue Diamond and grower activities are processed as complete. This should take anywhere between 2 to 4 months.



#### Can I seek additional grant funding?

Yes. There are funding programs available to "stack" on top of the CSG. Stacking is when you combine more than one source of grant funding for the same practice. Funding sources will vary by region but always make sure you <u>do not accept any</u> <u>other federal funds for the same practice on the same field</u>.

Please reach out to Blue Diamond for more information: jbains@bdgrowers.com

#### Can I apply to receive grant funding annually?

Yes. Growers may participate every year. All activities are subject to acreage limits specified per contract in the "Rules and Regulations" available on the Blue Diamond webpage: <u>bit.ly/bdg-csg</u>. (**note**: Only Cover Crops can be done on the same field more than once.)

#### When, where, and how can I begin seeking funding?

Growers are encouraged to begin their application as soon as they know they would like to implement one, or more, of the eligible practices. The application can be found at <u>bit.ly/bdg-csg</u>. You will be notified by Blue Diamond within 2 weeks after submitting an application.

#### Is this program mandatory?

No. The CSG program is not mandatory. It is a voluntary program for Blue Diamond Growers.

#### What are the rules and regulations for this program?

The full rules and regulations, including how to provide proof of implementation for each practice, can be found by clicking the "Rules and Regulations" link on the Blue Diamond Growers USDA Climate-Smart Grant resources page, or by following the link <u>bit.ly/bdg-csg</u>. Rules and regulations are subject to change, to align with USDA and/or market requirements.

#### **Cover Crops**



*Cover Cropping* is the practice of planting a temporary crop in the orchard middles, typically flowering and/or nitrogen-fixing species, after harvest with termination in late winter/early spring. Several species can be used as cover crops with each one chosen to serve a specific need.

The CSG grant is offering growers no cost seed and an implementation incentive of \$35/acre. The same incentive rate is offered when growers plant cover crop in every or every other row.

Cover crop benefits are briefly described below. Some benefits may not occur immediately but occur over time as soil adapts to cover crops. Please see the citations listed on page 14 to learn more information about the benefits:

Water Conservation: Improved soil infiltration and reduced runoff

Soil Health: Reduced compaction, greater aeration, stable aggregation, and water holding capacity. Some species of cover crops have been shown to be able to fix up to 100 lbs/acre of nitrogen depending on a variety of factors

**Pollinator Health:** Flowering cover crops provide necessary nutrition and stimulate honeybee population growth

**Pollinators:** Cover crops support stronger honey bee colonies and greater populations of native pollinators

Air Quality: Reduction of dust in orchard middles

**Climate:** Research on the ability of cover crops to increase soil carbon is an active area of study

**Economic Benefits:** Need for fertilizer and/or pesticide inputs may decrease over time depending on seed mix used and orchard site characteristics

### There may be challenges associated with cover cropping, noted below:

**Timing:** Cover crops must be planted following harvest, with best results observed with an October planting (**note:** Project *Apis m.* will work to ensure seed is provided before October)

**Establishment:** Cover crops are intended to be planted before fall/winter rains begin to allow for best chance at successful germination (**note:** hedgerows may be more suitable in water-restricted areas)

**Equipment:** Cover crops must be either seeded using a drill or broadcast using a spreader

**Orchard Sanitation:** Growers may consider planting every other row to ensure they can complete orchard sanitation

**Pests:** Certain cover crop mixes may harbor unwanted pests, such as gophers

#### Other considerations:

**Frost Protection:** This is an active area of research. Growers should manage their orchard floors in the way that best suits their needs and operation

**Bee Visitation in Almond Bloom:** Research shows that honeybee productivity is <u>not</u> negatively impacted by cover crops. Honeybees will seek almond nectar and pollen first, as it is a superior nutrition source. However, bees desire a diversified diet and will seek out alternative forage sources. Cover crops are an effective way to keep bees "local" in your orchard by providing alternative nutrition sources

**Implementation:** There is little prep work required for planting cover crops in almond orchards in the Fall. This is because preharvest preparations create a ready seed bed. Cover crops perform best when planted in early October. This planting date allows for the cover crop to become established in time to take advantage of winter rains and for early flowering species to bloom in time for almond bloom

**Termination:** In typical years, it is recommended that you terminate cover crops in April after honeybee colonies have been removed. Termination in April also allows for enough time for the plant biomass to break down before harvest

#### Practice requirements:

Practice implementation and standards will follow the NRCS Cover Crop CPS (340). Please review the USDA standard here: <u>bit.ly/NRCS\_CPS</u>

#### **Proof implementation:**

Growers will be required to provide proof of practice implementation which may include, but is not limited to, a signed form stating practice was implemented and a possible on-site review to confirm practice was implemented.

Proof of implementation is essential to ensure compliance with grant agreement terms and allow for adequate measurement, reporting, and verification of any claims by Blue Diamond and its growers.



#### Additional funding resources:

There are funding programs available to "stack" on top of the CSG. Stacking is when you combine more than one source of grant funding for the same practice. Funding sources will vary by region but always make sure you <u>do</u> <u>not accept any other federal funds for the same practice</u> <u>on the same field</u>.

Please contact program staff (jbains@bdgrowers.com) for up-to-date information.

#### How do I learn more?

For more Information on cover crops in almond orchards, please contact Project *Apis m*. Contact information can be found on page 13. Please see the citations on page 14 for research publications showing the benefits of cover crops.

Visit <u>almonds.com/almond-industry/orchard-</u> <u>management/cover-crops-and-forage</u> for cover crop best management practices.

Participation in the CSG demonstrates a willingness to be a part of the climate solution and reap the cover crop benefits that are well-known and those are still being discovered. In addition to those benefits, it's also important to note that implementing conservation cover around almond orchards capitalizes on a unique opportunity to positively impact the health of up to 90% of the nation's honeybees.





#### **Conservation Cover**



**Conservation Cover** utilizes perennial, vegetative, plants to prevent soil erosion, capture water on idle or fallow land, that can provide several year-round benefits pollinators and other beneficial insects. Conservation cover is intended to be a permanent installation, typically on fallowed, idle, or marginal land. Conservation cover is meant to be minimally managed for weeds to preserve the wildlife benefits and mitigate cost.

### The CSG grant is offering growers no cost seed and an implementation incentive up to \$50/acre.

Conservation benefits are briefly described below. Some benefits may not occur immediately, but over time as cover is established. Over time, benefits may come in the form of increased natural insect enemies, native pollinators, healthier managed pollinators, improved soil and water management. Please see the citations listed on page 14 to learn more information about the benefits:

#### Water Infiltration & Quality: improved infiltration

Soil Erosion: Prevents erosion and sedimentation

**Pollinator Health:** Flowering plants feeds pollinators and provide clean habitat

Climate: This is an active area of research currently

## There may be challenges associated with conservation cover, noted below:

**Pests:** Certain plant species may provide habitat for both beneficial insects and pest predators. However, depending on size, management, and other factors, it can also serve as a habitat for pests, such as gophers Weed Management: Controlling weeds in the first two years is critical to the success of the stand establishment. Weed control prevents weeds from taking over an area and gives desired plants time to establish and suppress weeds on their own

#### Other considerations:

Selecting conservation cover or mix that meets your goals, planting, and a plan for weed management are the major items to consider for your land. Consider the following when conceptualizing your conservation cover:

- Idle or fallow land or possibly marginal areas that can be converted
- Weed management strategy

Early fall, before the rainy season, is the optimal timing to plant conservation cover. This allows for the seed to germinate and become established before the winter season where many species will turn their energy to root development. This creates a stand that is established and more developed to handle the hot and dry conditions in summer.

#### Practice requirements:

Practice implementation and standards will follow the NRCS Conservation Cover CPS (327). Please review the USDA standard here: <u>bit.ly/NRCS\_CPS</u>

#### **Proof implementation:**

Growers will be required to provide proof of practice implementation which may include, but is not limited to, a signed form stating practice was implemented and a possible on-site review to confirm practice was implemented.

Proof of implementation is essential to ensure compliance with grant agreement terms and allow for adequate measurement, reporting, and verification of any claims by Blue Diamond and its growers.

#### Additional funding resources:

There are funding programs available to "stack" on top of the CSG. Stacking is when you combine more than one source of grant funding for the same practice. Funding sources will vary by region but always make sure you <u>do</u> <u>not accept any other federal funds for the same practice</u> <u>on the same field</u>.

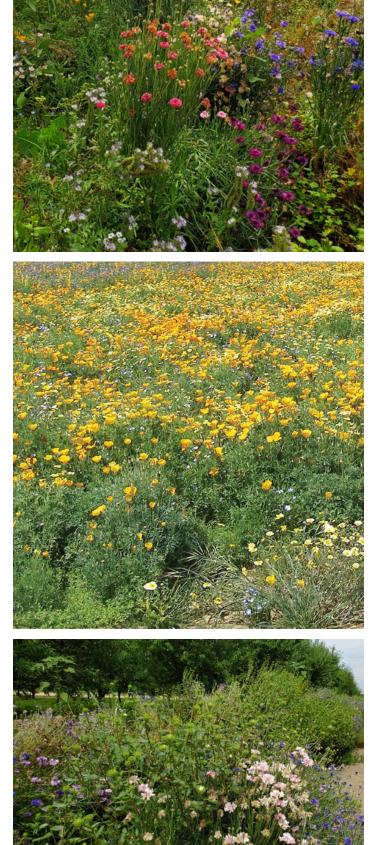
Funding sources are in constant rotation, so please contact program staff (jbains@bdgrowers.com) for up-to-date information.

#### How do I learn more?

For more Information on conservation cover in almond orchards, please contact Project Apis m. Contact information can be found on page 13. Please see the citations on page 14 for research publications showing the benefits of conservation cover.

Visit <u>almonds.com/almond-industry/orchard-management/</u> <u>cover-crops-and-forage</u> for conservation cover best management practices.

As a permanent installation, conservation cover creates significant wildlife habitat in addition to providing the on-farm benefits discussed in this guidebook. This practice not only improves the immediate area dedicated to conservation cover but can provide many beneficial services to the surrounding areas and inspire increased adoption and increase the impact of the overall climatesmart program.



#### **Hedgerows**



Hedgerows are permanent, perennial plantings that are usually composed of woody shrubs and trees that provide several year-round benefits to the orchard, pollinators, and other beneficial insects. Hedgerows are typically planted in the fall so that roots can establish over winter. A number of species can be used for hedgerows, including drought tolerant plants that become self-sufficient as they become established.

#### The CSG grant is offering growers no cost plant material and an implementation incentive up to \$8/linear foot.

Hedgerow benefits are briefly described below. Some benefits may not occur immediately, but in time as your hedgerow becomes established. Please see the citations listed on page 14 to learn more about the benefits.

Water Conservation: Provides benefits to water infiltration, retention, and filtration

Soil Health: Large root systems can hold soil from eroding, as well as fixing nitrogen

Pollinator Health: Floral resources (pollen and nectar) are provided throughout the season and offer vital nesting habitat

Climate: Can sequester carbon each year as plants grow

Air Quality: Can provide barriers to dust and wind that may be harmful to you or your orchard

Economic Benefits: Can potentially decrease farm input costs by supporting pest management benefits through beneficial insects. Hedgerows also support pollinator health, which may influence hive health and productivity

#### There may be challenges associated with hedgerows, noted below:

Establishment: Planting sites must be free of weeds before planting hedgerows to prevent competition for resources

Irrigation: Irrigation is essential for the first 3 to 5 years to support hedgerow establishment. After establishment, plants can succeed without supplemental irrigation in normal rainfall years

#### Other considerations

Timing: Hedgerows are most successful when planted in the fall, as roots will establish over the winter season. However, hedgerows can be planted throughout the year with sufficient irrigation and care

#### Practice requirements:

Practice implementation and standards will follow the NRCS Hedgerow Planting CPS (422). Please review the USDA standard here: bit.ly/NRCS\_CPS

**Cover Crops** 

**Conservation Cover** 

#### **Proof implementation:**

Growers will be required to provide proof of practice implementation which may include, but is not limited to, a signed form stating practice was implemented and a possible on-site review to confirm practice was implemented.

#### Additional funding resources:

There are funding programs available to "stack" on top of the CSG. Stacking is when you combine more than one source of grant funding for the same practice. Funding sources will vary by region but always make sure you <u>do</u> <u>not accept any other federal funds for the same practice</u> <u>on the same field</u>.

Funding sources are in constant rotation, so please contact program staff (jbains@bdgrowers.com) for up-to-date information.

#### How do I learn more?

For more information on hedgerows in almond orchards, please contact Pollinator Partnership. Contact information can be found on page 13. Please see the citations on page 14 for research publications showing the benefits of hedgerows.

Visit pollinator.org/guides for region specific guides.









## Want to learn about one of these practices from someone in your area?

We can help connect you with local technical advisors to ensure the best possible outcome for your activity. Reach out to jbains@bdgrowers.com or your Regional Manager for more information.



#### **Contact Information**



**Blue Diamond Growers:** 

Regional Managers: bluediamondgrowers.com/meet-your-partners/

Jasdeep Bains: jbains@bdgrowers.com

#### **Project** Apis m.

#### Project Apis m.:

Brett LeDuc: brett@projectapism.org



**Pollinator Partnership:** 

Billy Synk: billy@pollinator.org



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Contact Info & References


Notes





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