

Perspectives on the Future of Western Ag & Trade

Christine Birdsong

Undersecretary

California Department of Food and Agriculture

Table of Contents

| | |
|--|----------------|
| Considering Carbon: Markets & More – Micah Brown and Rusty Rumley | Page 2 |
| Seasonal Fruit and Vegetable Competition in U.S.-Mexico Trade - CRS | Page 12 |
| FIFRA; Steps to Pesticide Registration – Brigit Rollins | Page 15 |

Considering Carbon: Markets & More

Overview

An interest in reducing environmental impacts and achieving climate sustainability within the U.S. is growing significantly among both the public and private sectors. As a result, several different entities are considering carbon credit markets to encourage the reduction of greenhouse gases (“GHG”). Generally, these markets offer credits to market participants based on the amount of carbon dioxide they have sequestered in the soil. In turn, these credits are sold to companies in the carbon marketplace. Because of the creation of carbon markets and escalating interest in reducing GHGs, a carbon industry is beginning to emerge.

Meanwhile, agriculture has become a centerpiece of the climate discussion because the agricultural sector is capable of delivering natural climate solutions. Specifically, many agricultural producers across the nation are capable of reducing carbon emissions by undertaking certain “climate-smart” farming practices that sequester carbon. Agriculture’s ability to capture and sequester carbon has prompted the carbon industry to encourage agricultural producers to participate in carbon markets. Several carbon market operators offer market programs to agricultural producers who implement sustainable farming practices in order to boost market participation. Producers engaging in these markets are advancing the goal of climate sustainability, while also receiving a new source of revenue by selling credits on the carbon market.

While carbon market programs are currently operating, there is still some uncertainty surrounding the emerging carbon industry. Much of this uncertainty arises from the lack of information about carbon credit markets. Currently, the industry is operating almost entirely within the private sector because carbon markets are being operated by several different private companies. Because many of these market-operating companies rarely publicize details on business arrangements and how their carbon markets are operated, the industry continues to be complex and unclear.

Even though private market operators are dominating most of the carbon industry, the federal government is becoming involved in the climate policy debate. Specifically, Congress is seeking to develop the carbon industry by implementing practical solutions that reduce GHG emissions, while also generating economic opportunities for other sectors. Because agriculture and forestry sectors mitigate the release of carbon into the atmosphere through natural solutions, Congress has proposed legislation to assist both sectors.

Recently, Congress proposed a bipartisan bill known as the [Growing Climate Solutions Act](#). Overall, this bill enables the United States Department of Agriculture (“USDA”) to regulate certain aspects of the carbon industry, bring more clarity to the carbon marketplace, and expand opportunities for more producers to participate in the carbon industry. In other words, it makes it easier for agricultural producers and foresters to participate in carbon credit markets.

Agriculture Developing the Carbon Industry

As the demand for climate sustainability increases, many different industries are seeking ways to participate in the carbon industry as a climate solution. Industries such as transportation, retail, manufacturing, and automotive are entering the climate policy debate to suggest measures they can implement to reduce GHG emissions. However, some of the climate-smart initiatives proposed by these industries will take time to implement, meaning it may be years before these industries can serve as climate solutions. Because it will likely take some time for other industries to implement carbon-reducing initiatives, both public and private sectors are looking to agriculture as a leader in the carbon industry.

The agricultural industry is the focus of the carbon industry primarily because many producers can offer existing solutions to mitigate climate change. In general, producers can reduce GHG emissions from entering the atmosphere—which mitigates the impacts of climate change—because they can store carbon dioxide in cropland and rangeland soil. Storing carbon into the soil is commonly known as *carbon sequestration*. Producers can sequester carbon when implementing certain [carbon farming](#) practices, such as conservation tillage, planting cover crops, or applying soil amendments to their fields. Accordingly, producers who implement at least some carbon-smart practices will reduce carbon emissions and provide a solution to mitigating climate change.

Another asset agriculture brings to the carbon industry as a current climate solution is that the agricultural industry does not have to collect data or develop new technology to mitigate climate change. This is because researchers have already found carbon-reducing practices, and the industry has created technology to help producers implement these practices. As a result, producers wanting to implement carbon farming practices can begin doing so. In fact, some producers across the nation have already reduced carbon emissions by implementing carbon farming practices within their farming operations.

Lastly, agriculture is a large focus in the carbon industry because there is already a market in place to offer a new source of income to producers, while also advancing climate sustainability. Currently, there are not many economic opportunities available to other industries in the carbon industry. Unlike other industries, agricultural producers have the ability to generate additional income by participating in the carbon credit markets. Because these carbon markets are offering an additional source of income for producers, producers are likely more inclined to participate in mitigating GHG emissions. Therefore, the more producers involved in carbon markets, more carbon is sequestered, and the risks of climate change are reduced.

“Considering Carbon” Series

The carbon industry is still evolving, but it is clear that agriculture is playing a key factor in developing that industry. Because carbon markets have become an increasingly important aspect of the agriculture sector, the National Agriculture Law Center will discuss

various elements of the burgeoning industry in a new series titled “Considering Carbon: Legal Issues for an Emerging Industry.”

Over the next several months, the National Agricultural Law Center will provide resources addressing legal topics and issues that concern agriculture and the carbon industry. Each month, the Center will offer at least one new publication or webinar discussing certain areas of the carbon industry that may have an impact on agriculture. During this series, we will discuss topics such as contracts, insurance, monitoring and enforcement, administrative proposals, and taxation as it relates to agriculture’s role in developing the carbon industry.

To view the Growing Climate Solutions Act of 2021, click [here](#).

To read other blog posts in this series, click [here](#).

Considering Carbon: Overview of Carbon Market Composition

An interest in reducing environmental impacts and achieving climate sustainability within the U.S. is growing significantly among both the public and private sectors. As a result, several different entities are considering voluntary carbon credit markets to encourage the reduction of greenhouse gases (“GHG”). Generally, these markets offer credits to market participants based on the amount of carbon dioxide they have sequestered in the soil. In turn, these credits are sold to companies in the carbon marketplace. Because of the escalating interest in reducing GHGs, voluntary carbon markets are quickly developing a carbon industry.

Meanwhile, agriculture has become a centerpiece of the climate discussion because the agricultural sector is capable of delivering natural climate solutions. Specifically, many agricultural producers across the nation are capable of reducing carbon emissions by undertaking certain “carbon-smart” farming practices that sequester carbon. Agriculture’s ability to capture and sequester carbon has prompted the carbon industry to encourage agricultural producers to participate in carbon markets.

Currently, several voluntary carbon market operators offer market programs to agricultural producers who implement sustainable farming practices to boost market participation. While these market programs are currently operating, there is still some uncertainty surrounding these markets. Much of this uncertainty arises from the lack of information about carbon credit markets. Voluntary market programs within the U.S. are almost entirely operated by several different private companies, and because these market-operating companies rarely publicize details on business arrangements and how their voluntary carbon markets are operated, the industry continues to be complex and unclear.

Even though there is some uncertainty surrounding the existing voluntary carbon markets, these markets do have a potential to benefit the agricultural industry. Specifically, producers engaging in these markets are advancing the goal of climate sustainability, while also receiving a new source of revenue by selling credits on the voluntary carbon market. Thus, it is important for individuals and entities participating in the agricultural sector to understand the basic characteristics of carbon markets. This article discusses a general overview of the existing carbon market structure, the parties involved in these markets, participation requirements, and how these markets generate a new source of revenue for the agricultural industry.

Types of Carbon Markets

Currently, there are two types of carbon markets within the carbon industry: compliance markets and voluntary markets. Compliance carbon markets (also known as “mandatory markets”) are usually organized by governments to target certain industries or sources that emits GHGs. Typically, the government places caps on GHG emissions, and the industry or source emitters is legally mandated to offset their emissions. In a compliance market, emitters obtain pollution permits or allowances in order to meet the emission cap

limits. These emitters are allowed to trade unused allowances to other emitters or financial intermediaries to make a profit. An example of a compliance market is California's Cap-and-Trade Program.

While compliance markets exist, most carbon markets within the U.S. are voluntary markets. Unlike compliance markets, voluntary markets are instituted by private companies who develop and operate their own marketplace to facilitate transactions of carbon offsets, the act of reducing emissions of carbon dioxide into the atmosphere. Voluntary markets are incentive-based markets that allow individuals and private entities to purchase carbon offsets or credits on a voluntary basis. In other words, the market-operators use their voluntary market to link buyers and sellers of carbon credits.

Overall, voluntary carbon markets are relatively flexible and far less regulated than compliance markets because voluntary markets operate in the private sector. Because voluntary markets are developed by several different private companies, each market can differ from one another. Specifically, each market operator sets their own verification standards, credit registries, participation requirements, and project criteria for their carbon market. While voluntary markets differ, most markets are structured the same and each implement similar operational practices.

Voluntary Market Structure

In general, once private companies establish a voluntary carbon market, they seek participants who have the ability to capture and store carbon dioxide into soils, a process known as *sequestration*. Many agricultural producers have the ability to sequester carbon by implementing certain farming practices. Thus, various markets provide specific market programs for producers to encourage their participation in the carbon market. However, these programs have specific eligibility requirements that producers must satisfy in order to participate in an operator's market.

Producers choosing to participate in a carbon market must implement certain carbon-smart farming practices into their operation. Exercising carbon-smart practices is required to participate in a market because these practices sequester carbon, which is how carbon credits are quantified. The most common practices include crop rotation, cover crops, buffer strips, no-till/reduced-till, livestock grazing, and applying soil amendments to fields.

Producers who implement at least some of these practices will reduce carbon emissions, and depending on the market program, will be eligible to participate in a voluntary market to sell the carbon credits they produce. However, before a producer is enrolled into a market program, they are usually required to provide records and documents to certify they have incorporated carbon-smart practices in their farming operation. The market operator—or a third-party verifying company—reviews the producer's records and verifies the producer's farming practices to ensure the producer is capable of sequestering enough carbon to participate in that market program. If the verification deems the producer eligible to participate, the producer can accept the verification and enroll in the carbon market.

Typically, producers enrolling as a market participant must execute a contract provided by the market operator. The contract will likely contain provisions that allows the market operator to collect certain data from the producer's croplands. Basically, this data is necessary to measure and verify the amount of carbon the producer sequesters. Additionally, the contract will likely require the producer to hire an independent third-party company to verify the amount of carbon they sequestered. Once verified, the market operator issues carbon credits to the producer based on the amount of carbon they sequestered.

Because various different private companies operate their own voluntary carbon market, the data measurement procedures to calculate the amount of sequestered carbon may differ from one market to the next. However, many of these voluntary markets are using similar methods to determine the number of carbon credits a producer earns. Some markets issue carbon credits to producers who simply implement carbon-smart farming practices, but other market operators issue credits based on measured outcomes. These market operators choose to issue carbon credits either on a per-acre or per-metric-ton basis.

Many producers currently enrolled in a voluntary carbon market are likely participating in a market that measures sequestration on a per-acre or per-metric-ton basis. In these outcome-based markets, carbon credits quantify the amount of carbon the producer sequesters. If a producer participates in a market that uses a per-acre method, the producer receives the value of the market operator's carbon credit for each acre carbon was sequestered.

Producers participating in a market that measures carbon sequestration on a per-metric-ton basis, the producer receives carbon credits based on the tonnage amount. In some markets, one metric ton of sequestered carbon equals one carbon credit. Depending on the market's measurement procedures, the third-party verifier determines how many metric tons of carbon dioxide the producer sequesters. Once tonnage is verified, the market operator issues carbon credits to the producer based on the number of metric tons they sequestered.

Voluntary Carbon Marketplace

In general, the voluntary carbon market is driven by numerous individuals and private companies who are taking steps to eliminate GHG emissions. Specifically, several businesses are setting net-zero or climate-neutral targets, but many entities face financial or technological difficulties to reach their goals. In some instances, it is less expensive for companies to pay others to reduce emissions instead of implementing emission-reducing practices within their own business operations. Thus, in order to meet their climate-neutral targets, many companies purchase carbon credits available in the voluntary market to reduce their GHG emissions.

Many voluntary carbon markets facilitate their own carbon marketplace. Private market operators use the marketplace to link buyers and sellers of carbon credits. In other words,

a carbon marketplace provides individuals and business entities the opportunity to purchase carbon credits a producer has generated. In most markets, either the market operator or a third-party broker will sell a producer's credits to a buyer. Once sold, the producer receives the proceeds from the sale.

Early Adopters

One issue surrounding voluntary carbon markets is the idea of additionality. Currently, only some carbon markets provide programs for early-adopting producers, but only for a limited number of years. Many voluntary markets only offer market programs to producers who are implementing new carbon-smart farming practices in their operation. Thus, producers who previously adopted carbon-smart practices have difficulties enrolling in a voluntary carbon market. As voluntary carbon markets continue to develop, more market operators may offer programs for producers that previously incorporated carbon-smart practices in their farming operation.

Conclusion

The development of voluntary carbon markets has the potential to benefit agricultural producers greatly. Producers enrolling to participate in a voluntary market implement carbon-smart farming practices, and these practices have the ability to enhance soil health, crop yields, and sustainability. Additionally, these carbon markets also provide producers a new source of revenue by selling credits in a carbon marketplace.

Although voluntary markets offer potential benefits for participating producers, these markets operate almost entirely in the private sector and are not currently regulated by the federal government. However, Congress recently proposed the [Growing Climate Solutions Act](#), a bill that provides the federal government the ability to assist in the development of voluntary carbon markets. Also, the United States Department of Agriculture recently began judging the feasibility of creating a carbon bank, which would reward producers who implement carbon-smart practices in their farming operation.

Overall, voluntary carbon market operators are currently enrolling producers across the nation to participate in their market programs. However, each voluntary market operates differently from one another, such as enrollment criteria, acreage requirements, credit value, and payment structure. Therefore, before signing a contract to participate in a market program, producers should seek legal advice to determine if enrolling in a carbon market will benefit their farming operation.

To read other blog posts in this series, click [here](#).

Senate Advances Carbon Market Bill

On April 20, 2021, the Senate unveiled the text of the proposed Growing Climate Solutions Act. The bill, which has been co-sponsored by 20 Democrats and 22 Republicans, is aimed at encouraging the development of voluntary carbon markets. Specifically, the bill would help provide technical assistance for farmers and private forest landowners to get involved in voluntary carbon markets. This is the second version of the Growing Climate Solutions Act, with the first proposed in the previous Congressional session.

Background

The original Growing Climate Solutions Act was first introduced to Congress on June 4, 2020. Like its 2021 counterpart, the goal of the 2020 bill was to make it easier for farmers and foresters to gain entry the voluntary carbon marketplace.

Voluntary carbon markets are an emerging phenomenon meant to address the reduction of greenhouse gases (“GHG”) in the atmosphere. In general, these markets encompass transactions of carbon offsets, the act of reducing or sequestering a certain amount of carbon dioxide out of the atmosphere. Offsetting a certain amount of carbon generates a credit which can then be bought or sold on within the voluntary market. Because these carbon markets are voluntary, it is up to the organizations facilitating the markets to set their own standards for market participation, credit registries, and types of projects that will be regarded as reducing carbon or other GHGs.

Because voluntary carbon markets operate in the private sector, they are viewed as being more flexible than required “compliance” carbon markets. Compliance markets, such as the cap-and-trade program adopted by the state of California in 2013, are typically instituted by governments and may target a specific industry or type of GHG emitter. In a compliance market, the government will likely determine the maximum amount of GHG that a source may emit, how credits will be generated, and who may participate in the market. Participation and demand in compliance markets are determined according to regulatory requirements. In a voluntary market, demand is determined according to the participants, and who may participate is less formally regulated. Additionally, because voluntary markets can differ from one another, a potential participant has the option of exploring different markets to determine which would work best for the participant’s needs.

While the flexibility of voluntary carbon markets allows room for experimentation and innovation, it can also create certain obstacles. Access to reliable information about markets, access to qualified assistance to new participants, and lack of standardized quality criteria have become obstacles to getting farmers and private forest landowners involved in carbon markets. The Growing Climate Solutions Act of 2020 was introduced as a potential solution to those issues. Although the Senate Committee on Agriculture, Nutrition, and Forestry held hearings on the 2020 bill, it failed to receive the support needed to become law. This prompted the sponsors of the Growing Climate Solutions Act

to resume negotiations with other Senators in order to draft a new version of the bill. That version was reintroduced to the Senate this week.

Growing Climate Solutions Act of 2021

According to the text of the Growing Climate Solutions Act, its purposes are to facilitate both “the participation of farmers, ranchers, and private forest landowners” in voluntary carbon markets, and the “provision of technical assistance [...] in overcoming barrier to entry,” as well as to establish the Greenhouse Gas Technical Assistance Provider and Third-Party Verifier Certification Program (“the Program”) and an Advisory Council to advise USDA regarding the Program. In other words, the purpose of the bill is to create a certification program under USDA to provide technical assistance to agricultural producers seeking to participate in voluntary carbon markets.

Under the Growing Climate Solutions Act, USDA would have 270 days after the Act becomes law to determine whether establishing the Program would further the goal helping to get farmers and private forest landowners involved in voluntary carbon markets. If USDA determines that establishing the Program would help advance that goal then the Department may proceed. If it finds that establishing the Program would not help advance that goal, then USDA must issue a report detailing its findings.

Once the Program is established, the Growing Climate Solutions Act directs that USDA must create “recognized protocols” for voluntary carbon markets that would ensure “consistency, reliability, effectiveness, efficiency, and transparency” with regards to a variety of procedures including sampling methodologies, account systems, and systems for verification. Additionally, USDA would be required to develop qualifications for “covered entities” under the Program. Those covered entities include both providers of technical assistance to agricultural producers looking to participate in carbon markets, as well as third-party verifiers conducting the verification processes for voluntary carbon markets. In developing both the protocols and qualifications, USDA would be required to give at least 60 days for public notice and comment.

USDA would then be required to maintain a website through which covered entities may receive Program certification. The website would also maintain a list of covered entities so that agricultural producers can easily access information on certified technical assistance providers and third-party verifiers.

Along with the Program, USDA would be required to establish the Greenhouse Gas Technical Assistance Provider and Third-Party Verifier Certification Program Advisory Council (“Advisory Council”). The purpose of the Council would be to review and recommend any appropriate changes to the Program’s protocols and qualifications, and to advise USDA on a number of topics, including current carbon market practices, and ways to reduce barriers to entry. At least 51% of members on the Advisory Council must be representatives from the agricultural industry. Four members will be from the forestry industry, and other members will include professionals familiar with carbon markets, and environmental and agricultural issues.

In addition to information generated by the Advisory Council, USDA would also be required to partner with the Environmental Protection Agency (“EPA”) to conduct an assessment regarding a variety of topics related to carbon markets. That assessment would include information on: the number of entities involved in voluntary carbon markets; overall demand for agriculture or forestry credits; the total number of agriculture or forestry credits that have been generated; barriers to entry; methods for reducing barriers to entry; the current state of monitoring and measuring technologies needed to quantify long-term carbon sequestration; and ways in which USDA can encourage voluntary carbon markets. After creating the initial assessment, USDA and EPA would be required to draft a new one every four years.

Comparing the latest version of the Growing Climate Solutions Act to the version that was introduced in 2020, the main differences involve the Advisory Council, and a new section in the bill titled “Fair Treatment of Farmers.” Under the 2020 bill, the Advisory Council would have had 25 members, only 10 of whom would have been representatives from agriculture. Under the 2021 bill, more than half of committee members are required to be members of the agricultural industry. Additionally, the Fair Treatment of Farmers provision will require USDA to ensure that covered entities act in good faith by providing farmers with realistic cost and revenue estimates. The provision will also require USDA-certified technical assistance providers to help farmers receive a fair distribution of the revenue generated from the sale of carbon credits.

What’s Next

Currently, the Growing Climate Solutions Act has received [broad bipartisan support](#) in Congress, as well as support from various private organizations including the [American Farm Bureau Federation](#), and the [Environmental Defense Fund](#). However, the bill still has a way to go before it becomes law. On April 22, 2021, the Senate is expected to hold a “markup” for the bill, a process that gives senators an opportunity to amend and rewrite proposed legislation. The bill then must pass both the Senate, and the House before it can advance to the President for signing. While it is currently unclear whether the Growing Climate Solutions Act will be enacted, the wide base of support for the bill is encouraging for its supporters. On April 22, the Senate Agriculture Committee unanimously advanced the bill, and further co-sponsors have signed on. As of April 22, the Growing Climate Solutions Act is co-sponsored by 20 Democrats and 22 Republicans. Senators on the Agriculture Committee are hopeful that the bill could be given time on the Senate floor before the August recess.

To read the Growing Climate Solutions Act of 2021, click [here](#).

To read the Growing Climate Solutions Act of 2020, click [here](#).



Updated February 22, 2023

Seasonal Fruit and Vegetable Competition in U.S.-Mexico Trade

As part of the United States-Mexico-Canada Agreement (USMCA) negotiation, the United States attempted to resolve ongoing trade imbalances with Mexico for seasonal and perishable fruits and vegetables through rule changes to U.S. trade laws. American negotiators had hoped such changes could make it easier to initiate trade remedy cases against (mostly Mexican) exports to the United States and would respond to complaints by some fruit and vegetable producers, mostly in southeastern U.S. states, who claim to be adversely affected by import competition from Mexico. Several Members of Congress from those states have supported such actions; however, USMCA, which came into force in 2020, did not include seasonal produce protections. Congress has continued to consider legislation that would establish protections for seasonal produce.

U.S. Fruit and Vegetable Trade Situation

The United States has been a net importer of fresh and processed fruits and vegetables since the 1990s (Figure 1). In 2022, the gap between total U.S. imports and exports of fresh and processed fruits and vegetables (excluding nuts) totaled more than \$37.4 billion. For historical background on the market and trade conditions that may be influencing this trade imbalance, see CRS Report RL34468, *The U.S. Trade Situation for Fruit and Vegetable Products*.

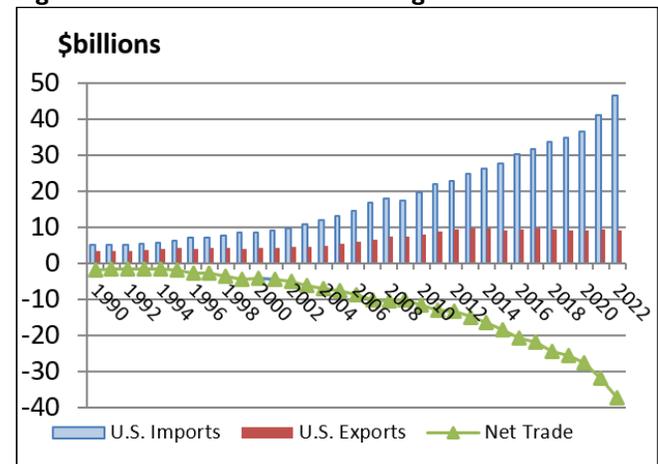
Mexico accounts for nearly half of the value of U.S. fruit and vegetable imports. In 2022, U.S. imports of fresh and processed fruits and vegetables from Mexico amounted to \$20.2 billion, while U.S. exports to Mexico totaled \$1.3 billion, resulting in a trade deficit of \$18.9 billion in these products (excluding nuts) (Figure 2). Several factors have contributed to this trade imbalance, including relatively open and free trade between the United States and Mexico and increased year-round demand for fruits and vegetables and counter-seasonal import supplies, which have benefitted U.S. consumers. Production of some Mexican fruits and vegetables—tomatoes, peppers, berries, cucumbers, and melons—has increased in recent years in part due to Mexico’s investment in large-scale greenhouse facilities and technological innovations, which some claim has been supported by the Mexican government and should be subject to antidumping and countervailing duties (AD/CVD) proceedings on U.S. imports. Trade concerns by growers in Florida and Georgia have primarily centered on imported tomatoes, peppers, and berries (Figure 3). For more historical background, see CRS Report R45038, *Efforts to Address Seasonal Agricultural Import Competition in the NAFTA Renegotiation*.

Efforts in USMCA Negotiation

The Trump Administration attempted to resolve concerns about this trade imbalance with Mexico through the USMCA negotiation. U.S. agriculture-related objectives in

the USMCA negotiation included a proposal to establish new rules for seasonal and perishable fruits and vegetables. The U.S. proposal would have established a separate domestic industry provision for perishable and seasonal products in AD/CVD proceedings, making it easier for a group of regional producers to initiate an injury case and prove injury, thereby resulting in AD/CVD duties on the imported products responsible for the injury. The approach embodied in the U.S. proposal could have protected some U.S. seasonal produce growers by making it easier to initiate trade remedy cases. The U.S. International Trade Commission (USITC) has previously reviewed trade remedy cases involving perishable produce—such as *Fall-harvested Round White Potatoes from Canada* and *Spring Table Grapes from Chile*—that proved difficult to settle.

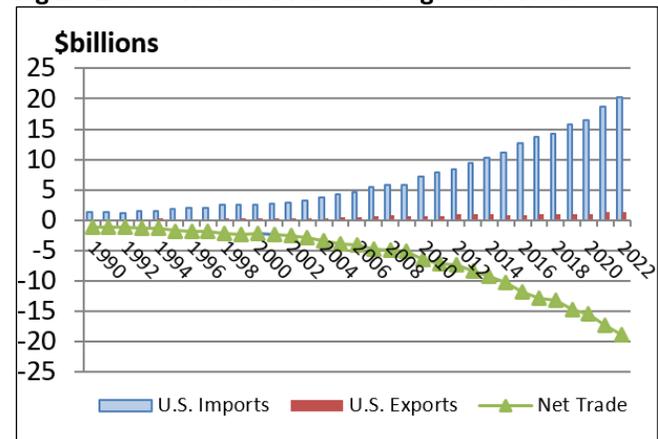
Figure 1. Global U.S. Fruit and Vegetable Trade



Source: CRS from data in the USITC’s Trade DataWeb database.

Note: Fresh and processed products (Harmonized Tariff Schedule [HTS] chapters 07, 08, and 20, excluding nuts [HTS 0801-0802]).

Figure 2. U.S.-Mexico Fruit and Vegetable Trade

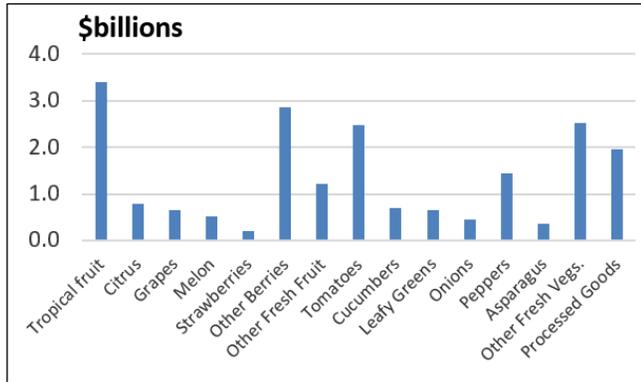


Source: CRS from data in the USITC’s Trade DataWeb database.

Note: Fresh and processed products (HTS chapters 07, 08, and 20, excluding nuts [HTS 0801-0802]).

As ratified, USMCA did not include changes to U.S. trade remedy laws to address seasonal produce trade. At a July 2019 congressional hearing, former U.S. Trade Representative (USTR) Robert Lighthizer indicated that attempts to include such provisions were not successful, citing opposition by Mexican negotiators.

Figure 3. U.S. Imports of Mexican Produce, 2022



Source: CRS from data in the USITC's Trade DataWeb database.

Note: Fresh and processed products (HTS chapters 07, 08, and 20, excluding nuts [HTS 0801-0802]).

Support and Opposition to Proposal

Views regarding seasonal produce protections in trade agreements are mixed. Although most lawmakers from Florida and Georgia called on USTR to include seasonal protections in USMCA, others in Congress opposed such changes, contending that seasonal imports complement rather than compete with U.S. growing seasons. Legislation seeking changes to U.S. trade laws to address seasonal produce concerns was first introduced in 2015 and reintroduced in each subsequent Congress, including in the 118th Congress (Defending Domestic Produce Production Act, H.R. 545/S. 104). Others have claimed such protections could open the door to an “uncontrolled proliferation of regional, seasonal, perishable remedies against U.S. exports.” The Fresh Produce Association of the Americas has contended that such efforts would favor a few “politically-connected, wealthy agribusiness firms from Florida” at the expense of both consumers and growers in other fruit and vegetable producing states, such as California. At a 2017 House Agriculture Committee hearing, lawmakers from California and other states highlighted the benefits of imports from Mexico to U.S. consumers and the U.S. produce industry.

Most U.S. food and agricultural sectors, including some fruit and vegetable producer groups, opposed including seasonal protections in USMCA. Some asserted that efforts to push for seasonal protections could have derailed the USMCA negotiation altogether. The Agricultural Technical Advisory Committee for Trade in Fruits and Vegetables (F&V ATAC), which advises USTR on behalf of the industry, did not support adding seasonal provisions to the USMCA negotiation. The F&V ATAC voted to withdraw the seasonal and perishable trade remedy proposal from the U.S. negotiating objectives in 2018.

Ongoing Efforts

Efforts to enact trade remedies on seasonal and perishable produce continue. Hearings held by USTR in August 2020 highlighted concerns on both sides of the issue. USTR released its plan for seasonal and perishable produce in September 2020, which initiated certain U.S. trade remedy investigations, among other actions. Separately, in 2021, the Department of Commerce implemented regulations intended to improve the administration and enforcement of AD and CVD laws (86 *Federal Register* 52300).

Section 201 Blueberry Investigation

In 2020, USITC conducted a global safeguard investigation into blueberry imports under Section 201 of the Trade Act of 1974 (19 U.S.C. §§2251-2254), as requested by USTR. A Section 201 investigation refers to trade remedy actions designed to provide temporary relief for a U.S. industry (e.g., additional tariffs or import quotas) to facilitate adjustment of the industry to import competition. USITC voted to terminate its investigation in 2021 after it determined that increased imports of fresh, chilled, or frozen blueberries are not a substantial cause or a threat of serious injury to the U.S. blueberry industry.

Section 332 General Fact-Finding Investigations

In 2020, USITC launched two general fact-finding investigations of strawberries and bell peppers under Section 332 of the Trade Act of 1930 (19 U.S.C. §1332). USTR requested these investigations “to monitor and investigate imports of strawberries and bell peppers, which could enable an expedited Section 201 global safeguard investigation.” USITC initiated two other investigations of seasonal cucumbers and squash with a focus on the U.S. Southeast, as requested by USTR on behalf of some Members of Congress from Georgia. Under a Section 332 general fact-finding investigation, USITC may investigate a wide variety of trade aspects of any matter involving tariffs or international trade, including conditions of competition between the United States and foreign industries.

Other Requested Investigations and Actions

In October 2022, USTR announced plans to “establish a private-sector industry advisory panel to recommend measures to promote the competitiveness of producers of seasonal and perishable produce” with a focus on the U.S. Southeast. Accordingly, USTR and USDA will work with an advisory panel “to develop possible administrative actions and legislation that would provide real benefits to this struggling industry.” This action was announced as part of USTR’s rejection of a petition from Florida tomato growers requesting protections under Section 301 of the Trade Act of 1974 (19 U.S.C. §§2411-2420). Section 301 provides authority for USTR to impose trade sanctions on foreign countries that violate U.S. trade agreements or engage in acts that are “unjustifiable” or “unreasonable” and burden U.S. commerce. Some industry groups have also encouraged USTR to launch a 301 investigation of Mexican trade practices and policies involving seasonal and perishable produce. To date, USTR has not initiated such an investigation. While some in Congress support such investigations, others in Congress oppose such efforts.

Renée Johnson, Specialist in Agricultural Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.



The National Agricultural Law Center

The nation's leading source for agricultural and food law research & information

NationalAgLawCenter.org | nataglaw@uark.edu

Factsheet,
Series: 2020

FIFRA: Steps to Pesticide Registration



This material is based upon work supported by the National Agricultural Library, Agricultural Research Service, U.S. Department of Agriculture

Luke Vance

Research Fellow, National Agricultural Law Center

Brigit Rollins

Staff Attorney, National Agricultural Law Center

All pesticides that will be sold or distributed in the United States must be registered with the Environmental Protection Agency ("EPA") according to the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"). The registration process involves an evaluation of the required forms, proposed labeling, technical and scientific data, and a statement of how the registrant will comply with any data compensation requirements.

I. Preliminary Registration Considerations

First, the party seeking to register a pesticide (known as the registrant) must determine whether its product needs to be registered under FIFRA. The key to whether a product must be registered is whether the product is a "substance" or a "device." If the product contains a substance that is intended to prevent, destroy, repel, or mitigate a pest or functions as a plant regulator, defoliant desiccant, or nitrogen stabilizer, then the product is considered to be a pesticide and will most likely require registration.¹ On the other hand, if the product is controlled by a physical or mechanical action, then it is considered a device and does not require registration². A product that includes a combination of these two methods must be registered unless it qualifies for an exemption.³

¹ 7 USCA § 136(u) (2020) <https://bit.ly/3lnyivf>.

² "Devices", while not requiring registration, may be subject to further regulation by the EPA. More information is available here: <https://bit.ly/3d8i3iT>

³ *Pesticide Devices: A Guide for Consumers*, EPA, <https://bit.ly/3d8i3iT>.

The information contained in this document is provided for educational purposes only. It is not legal advice, and is not a substitute for the potential need to consult with a competent attorney licensed to practice law in the appropriate jurisdiction.

Adjuvants, or chemicals added by users to improve a pesticide's efficacy, are not required to be registered as pesticides.⁴

Next, a registrant must determine the pesticide's classification so that the registrant knows which registration requirements must be met. Although there are general registration requirements that apply to all classifications of pesticides, certain classifications have their own additional requirements.⁵ The registration process for conventional pesticides is the general process that each classification must satisfy.

A pesticide may be classified as a "conventional pesticide," "biopesticide," or "antimicrobial." Conventional pesticides are generally synthetic chemicals used predominantly to kill insects, weeds, and fungi.⁶ Biopesticides include naturally occurring substances that control pests, microorganisms that control pests, and pesticidal substances produced by plants containing added genetic material.⁷ Finally, antimicrobial pesticides are substances or mixtures of substances intended to destroy or suppress the growth of harmful microbiological organisms, and pesticides that protect inanimate objects and surfaces from organisms such as bacteria, viruses, or fungi.⁸

II. General Registration Process

As stated above, the registration process has slightly different requirements based on the classification of the pesticide. However, there are requirements that all registrants must meet regardless of the pesticide's classification. Those include: data requirements, labeling requirements, and the submission of certain forms.⁹

1. Forms

As part of any registration process, the registrant is required to submit certain forms to the EPA. At the start of the registration process, FIFRA requires each registrant to file a statement with the EPA. The statement must include the following information:

- The name and address of the registrant and of any other person whose name will appear on the labeling;
- The name of the pesticide;
- A complete copy of the labeling of the pesticide, a statement of all claims to be made for it, and any directions for its use;

⁴ *Pesticide Registration Manual: Chapter 1 – Overview of Requirements for Pesticide Registration and Registrant Obligations*, EPA, <https://bit.ly/3j15PzN>.

⁵ Biopesticides and antimicrobials require slightly different considerations than conventional pesticides. More information regarding biopesticides may be found here: <https://bit.ly/33DQhr9>. Additionally, more information regarding antimicrobials may be found here: <https://bit.ly/33CGiSR>.

⁶ *Conventional Pesticide Registration*, EPA, <https://bit.ly/3nowvUh>.

⁷ *Biopesticide Registration*, EPA, <https://bit.ly/33DQhr9>.

⁸ *Antimicrobial Registration*, EPA <https://bit.ly/33CGiSR>.

⁹ 7 USCA § 136a.(c)(2) (2020) <https://bit.ly/30HVLQ2>.



The information contained in this document is provided for educational purposes only. It is not legal advice, and is not a substitute for the potential need to consult with a competent attorney licensed to practice law in the appropriate jurisdiction.

- The pesticide's complete formula;
- A request that the pesticide be classified for general use or for restricted use, or for both; and
- If requested, a full description of the tests made, and the results upon which the claims are based, or alternatively a citation to data that has previously been submitted to the EPA.
- The registrant is also required to pay a service fee.

The remaining required forms range from the general Application for Pesticide Registration/Amendment, to a Summary of the Physical/Chemical Properties of the pesticide. The forms generally cover much of the information discussed in this Fact Sheet. A complete list of these forms may be found on the EPA's website.¹⁰

2. Data Requirements

In addition to the required forms, registrants must also submit data to the EPA as part of the application process. The data is used to evaluate the potential human health and environmental effects associated with the use of the pesticide. The types of studies required include: product chemistry, product performance, data determining hazard to humans and domestic animals, data determining hazard to nontarget organisms, post-application exposure studies, user exposure studies, spray drift evaluations, environmental fate, and residue chemistry.¹¹

Generally, the EPA has broad authority to establish or modify the data requirements necessary for pesticide registration.¹² Further, the EPA is permitted to determine how much time the registrant will have to complete each registration requirement. In some instances, the EPA may require information in addition to the general requirements. When that happens, the EPA will provide the registrant with sufficient time to obtain the additional information.

In situations where a registrant is registering a new pesticide formulation that includes an already registered pesticide, the registrant will not be required to submit or cite data pertaining to the already registered product.

3. General Use vs. Restricted Use

In addition to setting data requirements, the EPA also reviews each product's label to ensure that it provides adequate instructions about how to safely use the pesticide product so as to avoid harm to human health and the environment.¹³ FIFRA provides that a product's labeling information shall not be false or misleading, shall not conflict with or detract from any statement required by law or the EPA as a condition of registration, and shall be substantiated at the request of the EPA.¹⁴ It is a violation of

¹⁰ *Pesticide Registration Manual: Chapter 20 – Forms and How to Obtain Them*, EPA, <https://bit.ly/2SNmo1D>.

¹¹ *Data Requirements for Pesticide Registration*, EPA, <https://bit.ly/2SNmo1D> (Includes specifics for each required study).

¹² *Data Requirements for Pesticide Registration*, EPA, <https://bit.ly/3d8bUTD>.

¹³ 7 USCA § 136a.(d)(1)(A) (2020) <https://bit.ly/30HVLQ2>.

¹⁴ 7 USCA § 136a.(c)(9)(B) (2020) <https://bit.ly/30HVLQ2>.



The information contained in this document is provided for educational purposes only. It is not legal advice, and is not a substitute for the potential need to consult with a competent attorney licensed to practice law in the appropriate jurisdiction.

federal law to use a pesticide in a manner inconsistent with its label.¹⁵

The EPA classifies pesticides for either “general” or “restricted” use. A registrant may request in its statement which classification it prefers, but the decision is ultimately the EPA’s.¹⁶ The classification of the pesticide is crucial to the product’s labeling requirements.

If the EPA determines that the pesticide will generally not cause unreasonable adverse effects on the environment when used according to its label, then the EPA will classify the pesticide as “general use.”¹⁷ However, if the EPA determines that the pesticide may cause unreasonable adverse effects to the applicator, other persons, or the environment when used according to its label, then the pesticide will be classified as “restricted use” and may only be used by or under the direct supervision of a certified applicator.¹⁸

In some cases, a pesticide can be classified as general use for some situations and restricted use for others. When that happens, the labeling directions for the pesticide’s general uses must be clearly separated and distinguished from the directions related to its restricted uses.¹⁹ Additionally, the EPA may require that the pesticide’s packaging and labeling for its general uses be clearly distinguishable from the packaging and labeling for its restricted uses.

Even after registration has been approved, the EPA may change a pesticide’s classification from general use to restricted use in order to prevent unreasonable adverse effects on the environment.²⁰ In some circumstances, the EPA may also change the classification from restricted use to general use.

III. Alternative Types of Registration

In certain circumstances, FIFRA also allows registrants to register for experimental use permits, emergency exemptions, or state-specific registration as a temporary alternative to the general registration process.²¹

The EPA may issue experimental use permits when a pesticide manufacturer seeks to field test a pesticide that is under development.²² Manufacturers of conventional pesticides are required to obtain experimental use permits prior to testing new pesticides or new uses of already registered pesticides if the experimental test is conducted on ten or more acres of land, or on one acre or more of water. Biopesticides also require experimental use permits for experimental testing.

¹⁵ 7 USCA § 136a.(c)(9) (2020) <https://bit.ly/30HVLO2>.

¹⁶ 7 USCA § 136a.(d)(1)(A) (2020) <https://bit.ly/30HVLO2>.

¹⁷ 7 USCA § 136a.(d)(1)(B) (2020) <https://bit.ly/30HVLO2>.

¹⁸ 7 USCA § 136a.(d)(1)(C) (2020) <https://bit.ly/30HVLO2>.

¹⁹ 7 USCA § 136a.(d)(1)(A) (2020) <https://bit.ly/30HVLO2>.

²⁰ 7 USCA § 136a.(d)(3) (2020) <https://bit.ly/30HVLO2>.

²¹ *Pesticide Registration Manual: Chapter 17 – State Regulatory Authority*, EPA, <https://bit.ly/2SNn9rv>.

²² 7 USCA § 136c(g) (2020) <https://bit.ly/3nqC0WB>.



The information contained in this document is provided for educational purposes only. It is not legal advice, and is not a substitute for the potential need to consult with a competent attorney licensed to practice law in the appropriate jurisdiction.

Emergency exemptions allow state and federal agencies to permit the use of an unregistered pesticide in a specific geographical area for a limited period of time if an emergency pest condition exists.²³ The duration of an emergency exemption may not be longer than one year for specific or public health exemptions, or three years for quarantine exemptions. An example of a specific or public health exemption would be the presence of a pest situation against which available tools or resources would be ineffective. A quarantine exemption, on the other hand, could be the spread of an invasive pest that was not known to have previously occurred in the United States. In either case, a pesticide may receive an emergency exemption to help against the identified pest.²⁴

State-specific registrations allow states to register a new pesticide product for any use, or a federally registered product for an additional use, as long as the state demonstrates a special local need for the use of the product.²⁵ A state-specific registration is similar to an emergency exemption except that the special need is local to that particular state. However, the EPA has the authority to disapprove or overrule a state's special local need registration application.²⁶

IV. Registration Approval or Denial

If the EPA determines that all of the requirements have been met, then the EPA shall register the pesticide.²⁷ The EPA may register the pesticide for “unconditional” registration or “conditional” registration. Unconditional registration will be granted when all registration requirements have been met, and the EPA has determined that the pesticide will “not generally cause unreasonable adverse effects on the environment.”²⁸ The EPA will make this determination on the basis that no additional data, testing, or actions by the registrant is required.

Conversely, the EPA will grant conditional registration, or amended registration of a pesticide product if the agency determines that a registration decision can be made, but further data, studies, or action by the registrant are required.²⁹ When the EPA conditionally registers or amends the registration of a pesticide, the pesticide may be used while the required additional data is being generated as long as the EPA decides that the use would not significantly increase the risk of unreasonable adverse effects on people or the environment.

Unreasonable adverse effects on the environment is defined as “(1) any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide, or (2) a human dietary risk from residues.” Ultimately, all conditional registrations must submit or cite the same data that would be required for unconditional registration.

Upon the approval of a pesticide's registration, the EPA shall conduct an initial review of the pesticide

²³ 7 USCA § 136p. (2020) <https://bit.ly/30HoLae>.

²⁴ *Emergency Exemption Database*, EPA, <https://bit.ly/3iGexgu>.

²⁵ *Guidance on FIFRA 24(c) Registrations*, EPA, <https://bit.ly/2i9Nlul> (Additional information on special local needs).

²⁶ *Guidance on FIFRA 24(c) Registrations*, EPA, <https://bit.ly/2i9Nlul> (Additional information on special local needs).

²⁷ 7 USCA § 136a.(c)(5) (2020) <https://bit.ly/30HVLQ2>.

²⁸ 7 USCA § 136a.(c)(5)(D) (2020) <https://bit.ly/30HVLQ2>.

²⁹ 7 USCA § 136a.(c)(7)(A) (2020) <https://bit.ly/30HVLQ2>.



The information contained in this document is provided for educational purposes only. It is not legal advice, and is not a substitute for the potential need to consult with a competent attorney licensed to practice law in the appropriate jurisdiction.

no later than fifteen years after the pesticide's registration date.³⁰ The EPA shall periodically conduct further review every fifteen years following the initial review.³¹ It is during this time that the EPA will review each active ingredient in the pesticide to determine whether any changes need to be made with the pesticide's labeling, use, classification, or to cancel the pesticide's approval all together.

If the EPA determines that the registration requirements have not been satisfied, then the agency must notify the registrant of the denial and provide the reasons for denial.³² The registrant has thirty days from the date they received the denial notification to correct the unsatisfied conditions. If the registrant does not correct the conditions, the EPA may refuse to register the pesticide. Whenever the pesticide's registration has been refused, the EPA must notify the registrant of the decision and the reasons for the decision. Additionally, the EPA will publish the denial and its reasons for denial in the Federal Register. The registrant has the same remedies as provided for in FIFRA section 136d,³³ which includes judicial review.

The general public may also provide commentary and challenge a pesticide's approval.³⁴ Each time the EPA receives an application for a new pesticide, an application to change the pesticide's use pattern, or when the EPA issues a notice of intent to cancel a pesticide's approval, the EPA must open a comment period for the general public. The mandatory comment period is done through the Federal Register and usually last for thirty days. After the comment period closes, the EPA evaluates the comments and revises its assessment as needed. The public comments can lead to the EPA holding a public hearing to determine whether the registration should be canceled or have its classification changed.³⁵

V. State Registration

In addition to compliance with FIFRA, pesticide registrants must also comply with state laws. FIFRA provides states with the authority to regulate the sale or use of any federally registered pesticide in that particular state.³⁶ However, a state may not permit the sale or use of a pesticide that has not been registered with the EPA.

Finally, FIFRA provides that states have the primary enforcement responsibility for pesticide use violations.³⁷ In order to do this, the state must adopt adequate laws and regulations, implement procedures to enforce the laws and regulations, and keep records of reports relating to compliance with those rules and regulations. If a state is not able to meet those requirements, then the EPA shall have primary enforcement authority.

³⁰ 7 USCA § 136a.(g)(1)(A)(iii)(II) (2020) <https://bit.ly/30HVLQ2>.

³¹ 7 USCA § 136a.(g)(1)(A)(iv) (2020) <https://bit.ly/30HVLQ2>.

³² 7 USCA § 136d(f)(2) (2020) <https://bit.ly/2F7y4J4>.

³³ 7 USCA § 136d(f)(2) (2020) <https://bit.ly/2F7y4J4>.

³⁴ *Public Participation Process for Registration Actions*, EPA, <https://bit.ly/2F8hIW3> (More information regarding public participation in the registration process).

³⁵ 7 USCA § 136d(f)(2) (2020) <https://bit.ly/2F7y4J4>.

³⁶ 7 USCA § 136v(a) (2020) <https://bit.ly/30JUk3l>.

³⁷ *About Pesticide Registration*, EPA, <https://bit.ly/2F7yxLk>.



The information contained in this document is provided for educational purposes only. It is not legal advice, and is not a substitute for the potential need to consult with a competent attorney licensed to practice law in the appropriate jurisdiction.