

GETTING TO KNOW THE FOOD & FEED REGULATIONS THAT IMPACT INSECT AG IN THE UNITED STATES

(Updated January 2020)



Disclaimer: This overview is for informational purposes only and does not contain any specific guidance about how to meet federal regulations. It is not intended as legal advice.

Federal regulations in the United States are complex, even for the most well-established industries. Which agency governs? Who enforces what? And then there's the legalese and awkward acronyms.

For an emerging industry like ours, getting a grip on all the rules can be tough. That's why we made this simplified overview.

When you understand the situation and can speak confidently about our industry, it shines credibility upon the entire sector. Go you! Whether you raise insects for sale... use them as an ingredient... or simply wonder whose rules rule, this guide is for you.

Topics You'll Discover:

- Terms to Know
- Raising Insects for Food
- Wildcrafting Insects
- Insects as Ingredients
- Insects for Animal Feed or Pet Food

As demand for Insects as Food and Feed grows NACIA looks forward to being a voice for the industry, working together with regulators, and helping our members succeed. For further questions and guidance, please contact NACIA at naciahq@gmail.com

Terms to Know

FDA – Food and Drug Administration

The FDA is a federal agency that ensures food supply safety. They watch over food additives (A.K.A ingredients), and make sure the public gets the science-based info they need.

FSMA – Food Safety Modernization Act

This 2011 act extends the FDA's authority to regulate the way food (including pet food and animal feed) is grown, harvested and processed. Its focus is on preventing contamination and foodborne illnesses.

GRAS – Generally Recognized As Safe

GRAS is an FDA acronym which applies to food additives (any substance that is intentionally added to food). It is an exemption to the FDA constraint that additives be pre-approved before use.

AAFCO – Association of American Feed Control Officials

AAFCO is a voluntary association that helps regulate the sale and distribution of animal (and pet) feed. Members come together from industry, federal, and state agencies to develop a uniform language for reference in laws.

The above descriptions have been simplified to keep them focused on insect agriculture. These organizations certainly have other divisions, roles, and responsibilities not listed.

The Regulations Concerning Insects as Food and Feed

RAISING INSECTS FOR FOOD



Although "insect farming" is a relatively new practice in the United States, our emerging industry is growing well under the existing federal food regulations and best practices. The regulations for rearing insects for human food are covered in the Food, Drug, and Cosmetic Act.

According to the FDA, insects are considered food if they are intended for food. And like all other food, insects as food must be clean and wholesome – that is, free of filth, pathogens, or toxins – and be produced, packaged, stored, and transported under sanitary conditions.

These "current good manufacturing practices" of the FDA apply well to the insect industry.

In 2011, with the passing of the Food Safety Modernization Act (FSMA), the FDA became better equipped to prevent (rather than respond) to food contamination. FSMA regulations apply to all food processing and manufacturing – including insects.

The current regulations of the FDA and FSMA are suitable for raising insects as food and are appropriate to preventing foodborne illness.

The Act covers rules and best practices such as hazard analysis, mitigations strategies, sanitary transportation, standards for packaging, and more. The intent is to lay out the appropriate way to produce safe food.

The regulations set out in FSMA are designed to apply to multiple industries and insect-specific updates are not required. In other words, the current rules are working for the insect industry.

WILDCRAFTING INSECTS FOR FOOD OR FEED



The FDA refers to insect gathering (such as from a farmer's field or in the forest) as wildcrafting. And they're not keen on it. Compared to rearing insects in a purpose facility, wildcrafting has much less control over the biological, chemical, and physical contamination risks.

The FDA doesn't allow wildcrafted insects to be sold as human food or animal feed.

Undoubtedly, there's potential in the abundance of live, high-quality insect protein found in nature. And eating wildcrafted insects is a common practice in many cultures. But we don't anticipate – nor is NACIA currently seeking – any change to the FDA regulations on wildcrafting.

INSECTS AS INGREDIENTS IN FOOD



The FDA requires food additives (A.K.A. ingredients) to be pre-approved before reaching the market. However, in a world with millions of potential ingredients, classifying every known ingredient as either "approved" or "prohibited" is unmanageable.

That's why the FDA permits a Generally Recognized As Safe (GRAS) exemption.

Insects, just like many other novel ingredients, fall under a self-affirming GRAS exemption. The GRAS status of insect ingredients (raised specifically for human consumption) meets FDA requirements – this is a good thing our industry.

Insect ingredients are Generally Recognized As Safe. This meets FDA requirements, and is favorable to the growth of our industry!

To be formally determined (as "allowed" or "prohibited") by the FDA is a complex and sensitive process. Every step should be driven by industry after careful preparation and, until the industry is mature, we should not engage the FDA in evaluation.

Insects are gaining acceptance as a food source in the United States. And in addition to FDA regulations, additional scrutiny could lead to insect ingredients being burdened by further jurisdiction.

The FDA regulations in place are adequate & appropriate for ensuring the safety of insects as a food source in the United States.

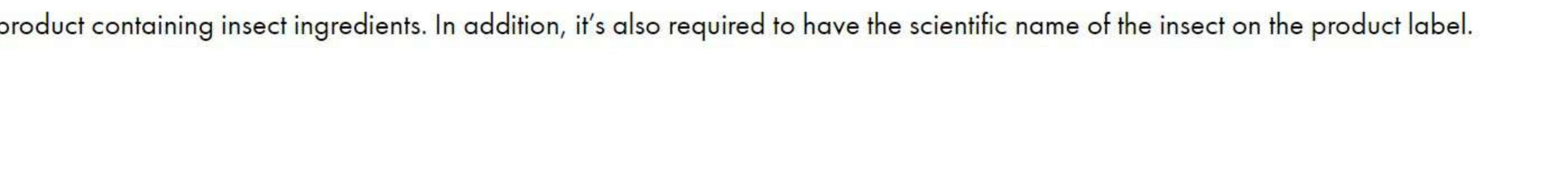
The US Department of Agriculture regulates poultry, eggs, and the meat of common livestock. Insects do not currently fall under USDA jurisdiction. Any additional governance, a change in regulations, or the creation of new regulations is unnecessary – and would absolutely impede this emerging food source.

Allergens are a concern for many Americans. For public safety regarding allergens, the FDA has the Food Allergen Labeling and Consumer Protection Act. Because insects are arthropods (invertebrate animals that have an exoskeleton), people allergic to eating shellfish could be allergic to eating insects.

To include a shellfish allergy warning on insect-based foods is an industry best practice.

To protect those who suffer from shellfish allergies, it's industry best practice to include a potential allergy warning statement on any product containing insect ingredients. In addition, it's also required to have the scientific name of the insect on the product label.

INSECTS FOR ANIMAL FEED OR PET FOOD



There's a promising future for insect protein in the pet food and animal feed market. The FDA, working together with AAFCO, has approved the use of Black Soldier Fly (BSF) in animal feed. But only as feed for salmonids (such as salmon, trout, and arctic char) and poultry.

No use of insects in any livestock feed (other than for poultry or aquaculture) has been explicitly defined. And no other type of insect, aside from BSF, has been explicitly defined.

Rectifying this lack of approvals is a priority for our industry, and submissions are in progress.

As submissions are now making their way through the approval process, any changes to existing legislation would be unhelpful.

Insects raised for animal feed (or pet food) cannot be diverted to human food. Considering the current consumer demand for quality, human-grade protein in pet food, it's possible that insects raised for human consumption could be diverted to pet food. At this time, however, the FDA has not explicitly allowed the use of insects in pet food.

Pet treats (which are not considered a source of complete nutrition) don't have to meet as many regulations as pet food. You can produce and purchase insect-based pet treats within the United States.

Concerned about the regulations?

We can help. Now and into the future, NACIA looks forward to being a voice for the insect industry! Reach out to us at naciahq@gmail.com



About the author

Tim Hirtle is an industrial-trades writer and volunteer with the North American Coalition for Insect Agriculture. He's keen to hear from industry experts and discover what's unfolding in their slice of the world.

