Send in the Clones

LINDSEY COBLENTZ, Associate Editor, Food Manufacturing

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All you *Star Wars* fans out there know all about cloning. In *Star Wars Episode II: Attack of the Clones*, an entire army of clones was engineered from the DNA of highly skilled bounty hunter Jango Fett. The clones' genetic material made them bigger, better and stronger, resulting in one of the most infamous armies in movie history. Of course, that's all science fiction, but it may not be for long — at least when it comes to your food.

That's right, folks. Cloned food may be coming to a dinner plate near you. Actually, it's already there. That apple you ate for lunch? It could have been a clone. Plants have been cloned for decades, providing you with larger, tastier produce.

There haven't been many complaints about cloned fruit. In fact, no one even really mentions it. But when it comes to cloned meat, it seems everyone has an opinion. The debate recently heated up when meat from the offspring of a cow cloned in the United States reportedly entered the British food chain without official authorization, prompting a brouhaha over the safety of cloned meat.

The British public apparently didn't get the memo that cloned meat was declared safe in 2008 by both the U.S. Food and Drug Administration [1] and the European Food Safety Authority [2]. A risk assessment study by the FDA concluded that meat from cloned cattle, swine and goats was just as safe as produce from their conventionally bred counterparts. The EFSA agreed, saying that scientific evidence confirmed cloned meat is safe for consumption.

In fact, as of right now there is no law banning the sale of cloned meat in either the United States or Europe. In order to provide time for consumers to adjust to the idea of eating cloned meat, the FDA asked clone producers and breeders to voluntarily keep meat and milk from clones and their offspring out of the food supply, but it is

only a matter of time before that moratorium is lifted.

Europe is taking a slightly different stance on cloned meat, tiptoeing carefully through consumer concern over ethics. While the EFSA does not have an ethical obligation when it comes to Europe's food supply, it has taken into consideration the opinion of the European Group on Ethics in Science and New Technologies [3] (EGE), which "does not see convincing arguments to justify the production of food from clones and their offspring."

Activist groups like the EGE have long perpetuated the myth that cloned animals are often born deformed and suffer all their lives. This is not the case. According to the FDA, most cloned livestock are born healthy and are no more likely to have health issues than non-clones. In fact, cloning healthy animals actually could result in healthier herds over time by eliminating common livestock diseases.

That's right. Cloning could actually be in animals' best interest. It turns out cloning is a safer way to breed animals than traditional mating, which carries risks such as animal injury, infection and venereal disease. Traditional mating is not used all that often anyway, mainly because of these risks. Many farmers use assisted reproduction technologies, such as artificial insemination, embryo transfer and *in vitro* fertilization. Cloning is simply a more advanced form of these methods.

Cloning also has many advantages that cater specifically to the consumer. Through cloning, producers could introduce healthier animals into a herd more quickly to provide leaner, more tender cuts of meat. By decreasing the amount of diseased animals in a herd, meat from the livestock is also less likely to be contaminated, meaning the public would be less likely to consume diseased produce.

Despite these benefits, cloning will not succeed in the meat industry with current public perception. Negative views on cloning have been ingrained into consumers, fueled by misinformation from animal welfare groups. The longer cloning myths persist, the less likely it is that cloning will succeed in the food industry. It is up to food agencies like the FDA and EFSA to be more proactive when it comes to educating consumers regarding cloned produce. When the public is aware of the facts behind cloning, it may warm up to the idea and eventually embrace the technology.

How do you feel about cloning? Should it be used in the food industry? Share your thoughts by e-mailing me at lindsey.coblentz@advantagemedia.com *[4].*

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[4] mailto:lindsey.coblentz@advantagemedia.com