

# Telling The Real Story about Fake Meats— This stuff has lots of holes in its logic, but also lots of money backing it

BY ALLEN R. WILLIAMS, Ph.D.

Consumers are being bombarded with ads for various forms of what are being boosted as “clean proteins,” but what I call “fake meat”.

It's pretty much impossible not to see, hear or read about fake meats. There is much publicity about these plant-based proteins and their supposed benefits for human health and animal welfare, the environment and climate change.

When you read or listen to the ads you will hear statements like, “100% plant-based,” “derived from all plant sources,” “healthier for you,” and “wow, I can't believe this is not real beef.”

In one commercial, people trying a fake meat burger say it tastes far better than the real thing, with one guy in a cowboy hat exclaiming, “I've been a #@\$\* fool!”

## What Isn't Said

The problem with most of these ads is that they provide little or no documentation of the “facts” they are so freely spouting. They do not give you an ingredient list for the fake meat product (most would not want to, given what's in this stuff).

They do not provide any nutritional or medical studies showing that these new fake meats are actually good for you, and they are not required to do so by the USDA or FDA.

Why? Because according to our USDA and FDA, all the ingredients are legitimate “food” items.

The promotions do not tell you how these products are actually better for the environment. They simply infer that plant-based proteins are better, and that if you are an “informed” consumer you should know that.

They do not tell you how the fake meats are better for animal welfare, other than again inferring that if you eat fake meats there will be far less harvesting of animals.

They do not tell you how growing all plants and not raising animals for real protein actually improves our climate. They do not tell you anything about potential long-term health consequences from eating fake meats as a substitute for real meats.

They do not mention anything about possible epigenetic effects from eating these fake meats as a routine part of the diet. They also do not tell us why we have to eat a fake meat in place of existing plant proteins.

## Highly Processed Food

Make no mistake about it, the fake meats currently on the market are mostly highly processed food products bearing little or no resemblance to a real, whole food.

The most commonly known fake meat made strictly from plant materials is the Impossible Burger. This product is touted as being both Halal and Kosher certified, and 100% vegan with no animal products or byproducts involved in its manufacture.

The published list of ingredients (from most to least): water, soy protein concentrate, coconut oil, sunflower oil, natural flavors, potato protein, methylcellulose, yeast extract, cultured dextrose, modified food starch, soy leghemoglobin, salt, soy protein isolate, mixed tocopherols, zinc gluconate, thiamine hydrochloride, sodium ascorbate, niacin, pyridoxine hydrochloride, riboflavin and vitamin B12.

Water comprises the greatest share of all ingredients, so the consumer is paying quite a lot for water. The next ingredient is soy protein concentrate. Employing yeast cultures, the manufacturers (it sounds strange to say that food is “manufactured”) mass-produce iron-rich soy protein.

## Soy Problems

While soy protein is classified as a complete protein, it does have some potential drawbacks. Soybeans are legumes, and legumes produce phytoestrogens. Too much phytoestrogen in our diet may negatively affect endocrine function in the body.

And when we consider that some 93% of all soybeans are genetically modified, and that glyphosate and other chemicals were heavily used in their production, are we really helping the environment and our long-term health?

In removing animal products, are we are saying it is OK to damage the environment and human health through herbicides, fungicides, insecticides and synthetic fertilizers?

How about poor farming practices that foster erosion, runoff and loss of soil carbon/organic matter? Water infiltration is significantly reduced by these practices, creating huge flooding events and an enormous “dead zone” in the Gulf of Mexico each year.

There is a saying from Scripture that before you criticize the speck in one person's eye, you must first remove the beam from your own.

Nutritional comparison: “Impossible Burger” vs. grain-fed beef		
Serving Size	4 oz	4 oz
Calories	240	260
Total Fat	14 g	16 g
Saturated Fat	8 g	6 g
Trans Fat	0 g	0 g
Cholesterol	0 mg	94 mg
Sodium	370 mg	89 mg
Total Carbs	9 g	0 g
Dietary Fiber	3 g	0 g
Total Sugars	1 g	0 g
Protein	19 g	28 g
Calcium	15% DV	27% DV
Iron	25% DV	17% DV
Potassium	15% DV	11% DV

## Bad Oils

Continuing down the ingredients list, we find that coconut oil and sunflower oil are prominent.

Soybeans themselves are not a great source of omega-3 fatty acids, while soybean oil has a ratio of omega-6 to omega-3 fatty acids of about 7:1, which is not a very healthy ratio. Our bodies cannot actually use much of the omega-3 in soy oil.

Sunflower oil is one of the worst oils in this regard, with an omega-6 :omega-3 ratio of 70:1.

The American Medical Association and the American Heart Association recommend that our daily diet consist of an omega-6 to omega-3 ratio of about 4:1 or less.

The average American's diet provides a ratio near 20:1. Such high ratios can cause tissue inflammation that leads to a host of diseases and disorders.

Coconut oil has no appreciable omega-3 content, while one cup has 3.92 grams of omega-6 fatty acids.

The other ingredients in the list aren't exactly inspiring, either. For instance, what “natural flavors” can possibly be used to simulate meat? The remainder of the ingredients reads like the back label of a manufactured chemical solution, which is really what the Impossible Burger is.

## Extreme Hubris

To think that we humans can design a synthetic “food” anywhere near the true nutrient value and composition of real foods produced by nature amounts to extreme hubris. As a scientist, my view is that this represents the height of scientific arrogance.

Manufactured foods will produce unintended consequences that will carry through to multiple

generations through epigenetic effects that are transgenerational in nature.

In other words, what we eat today will affect our children and our children's children. We have already seen this happen with the manufactured foods that are quite common in the middle aisles of every grocery store.

Let's do a nutritional comparison between real beef and the Impossible Burger (see table).

Keep in mind that the values in the table for beef are for commodity, grain-fed beef, not grassfed beef.

Per four-ounce serving, the calorie counts are quite similar, as are total fat and saturated fat. The Impossible Burger does list "0" mg. of cholesterol compared to 94 mg. for the grain-fed beef patty.

## Cholesterol Isn't All Bad

Our brains must be bathed in cholesterol in order to function properly. Cholesterol acts in the brain as oil does in an engine: take it away, and the brain/engine seizes up. We call that dementia.

So while too much cholesterol in our diet (particularly as it influences LDL cholesterol) may be an issue, too little cholesterol creates health issues as well.

Where the Impossible Burger really deviates from grain-fed beef is in the amount of sodium (salt) per serving. This fake burger has more than four times the sodium of grain-fed beef (370 mg. per four ounces vs. 89 mg.).

Too much sodium in the diet can lead to serious health problems that include high blood pressure, damage of vessel walls and increased risk of atherosclerosis, heart attacks and strokes.

It can cause oedema, which is manifested in swelling of the knees, feet and hands. Too much sodium can lead to stomach damage, including

increased chance of stomach cancer, while also encouraging overconsumption.

Real beef easily wins the protein comparison at 28 g. per four-ounce serving, compared to 19 g. in the Impossible Burger.

## Fast Food Loves This

It's interesting that the fast food sector has been the most aggressive adopter of this fake meat. Is putting a fake burger patty smothered in condiments between two buns any better for our health?

Is a fake meat fried chicken better for our health than real fried chicken? The advertising is trying to make us feel good about ourselves when we're eating fast food. Suddenly we are eating healthy.

I must ask the question: "Why do we need a fake meat?" Mankind has always had choice in what to eat from the natural world. If you want to eat an entirely plant-based diet, you are free to do so. You do not need a fake meat to assist you in the endeavor.

## What's Being Accomplished?

If the contention is that you are eating a fake meat to somehow help mitigate climate change, then just how are you accomplishing that? The manufacture of fake meat comes with expenditures of energy and water while creating environmental impacts (see prior *Graze* article, "It's Not Nice To Fool Mother Nature").

So would it not be better to eat plant proteins in their natural state? What are the main ingredients in fake meat that are being touted as "healthy for you"? Are they not primarily beans, peas and lentils?

If so, simply eating beans, peas and lentils as whole foods would achieve results far better than consuming them through their isolated

components in a highly processed mish-mash of ingredients made in a quasi-laboratory. And with whole foods we do not have to expend additional energy, water and carbon for the processing.

The real reasons for fake meat production are twofold. One, quite obviously, is to make money. Billions of dollars have been invested in fake meats, with billions more to come.

Many investors will profit handsomely, and obviously there are significant benefits for the fast food companies doing this advertising, as they're charging more for the fake burgers than for the real beef.

The second reason is to advance a plant-based diet agenda. After all, real vegans do not need a fake meat. They already know how to eat diets made up of whole plant foods rather than highly processed ingredients.

Fake meats are not intended to attract dedicated vegans. They are meant to entice the rest of us.

## But They're Here to Stay

Fake meats are here to stay. Too much has been invested. The question now becomes, "How much of a foothold will fake meats obtain within the protein sector?"

Next month, we will examine the real impact in the very things that are being touted as reasons to consume fake meats, along with the facts and fallacies of the real meat sector. 🌱

*Dr. Allen Williams is a partner in Understanding Ag, LLC, based in Starkville, Mississippi. He can be reached at 662-312-6826 and beefrepro@aol.com. He also serves on HMI's Advisory Council. This article was first published in GRAZE Magazine and is reprinted by permission. To learn more about GRAZE go to: grazeonline.com.*