

Arms Race Nutrition Vegan Brings Inclusions to Dairy-Free Protein!

written by Mike Roberto | July 1, 2022

*Arms Race Nutrition VEGAN protein powder has launched... and it has **inclusions!***

One thing that people on a plant-based diet discover is that *it can be difficult to get enough protein from whole-food plant sources*. That applies for those who are dairy-free as well.

Generally speaking, plant proteins are less digestible and, hence, less bioavailable than animal proteins. This means that the dietary protein requirement for vegans and vegetarians is actually *higher* than that of omnivores and carnivores (since your body uses less of the protein you consume).



It's not *impossible* to get enough protein from whole foods on a plant-based diet, but it's easy to overlook if you aren't paying close attention to what you eat. If you've decided to forego meat, or even all animal products entirely, you should track everything you consume and calculate your total protein intake to ensure it's adequate.

Arms Race Vegan: A Pea / Brown Rice Vegan Protein Powder with *inclusions!*

For the many athletes, vegans and vegetarians who will discover that they're not getting enough protein from food, **Arms Race Nutrition** has a new *vegan protein powder* that we suggest trying. That said, this product definitely appeals to more than just people who *don't* eat meat.

This powder is based on *pea protein* and *brown rice* protein – two plant proteins that are *relatively* digestible and together cover *all nine* essential amino acids.

Arms Race VEGAN has launched in a couple of delicious flavors right off the bat – and as mentioned up top – many of the flavors have *inclusions*, something we don't see in vegan protein powders! And more flavors are coming...

Arms Race was clearly careful in formulating these flavors to overcome a problem that's typical of vegan protein powders: namely, it's *very* difficult to find a vegan protein powder that has great flavor, texture, *and* nutritional quality. Below, we show how they did it:

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Arms Race Vegan Ingredients

- Pea Protein

Nutrition Facts

About 29 servings per container

Serving Size 1 scoop (31.5g)

Amount per serving

Calories 120

	% Daily Value*
Total Fat 3g	4%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 210mg	9%
Total Carbohydrate 3g	1%
Dietary Fiber 1g	4%
Total Sugars 1g	
Includes 1g Added Sugars	2%
Protein 20g	
Vitamin D 0mcg	0%
Calcium 30mg	2%
Iron 4.4mg	24%
Potassium 0mg	0%
Phosphorus 200mg	16%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

INGREDIENTS:

Pea Protein, Brown Rice Protein, Premium Graham Cookie Gems™ (Enriched Flour (Wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid), Graham Flour, Sugar, Palm Oil, Honey, Molasses, Salt, Sodium Bicarbonate, Natural Flavor, Annatto Color), Coconut Oil Blend: (Coconut Oil, maltodextrin, and modified food starch), Natural Flavors, Vegan BCAA 2:1:1 (L-Leucine, L-Isoleucine, L-Valine), Sucralose, Xanthan Gum, DigeSEB™ (Amylases, Lactase, Proteases, Lipase, Cellulase), Acesulfame Potassium.

ALLERGEN INFORMATION:

Contains Soy, Wheat, Tree Nut (Coconut). Manufactured in a facility which processes Milk, Eggs, Fish, Shellfish, Tree Nuts, Peanuts, Wheat, Soybeans, and Sesame.

The Arms Race Nutrition Vegan Nutrition Facts and Ingredients. Note that this is for the Banana Pudding flavor, and macros will vary – especially when adding inclusions!

First up is **pea protein**, a great plant-based protein because of its *complete amino acid profile*. [1-3] What we mean by “complete” is that it contains *all nine essential amino acids*. And what makes them “essential” is that your body can’t synthesize these aminos on its own, so you must obtain them in their whole form from the food, drinks, and supplements you consume.

One interesting thing about pea protein is that, compared to more typical complete protein sources, it’s a bit low in *methionine*— a substance that functions as an antioxidant. [4] Although methionine is crucial for certain bodily processes, [5] there is evidence that *methionine restriction* may improve

health and increase longevity.[6,7]

The research literature shows plainly that pea protein supplementation is effective for increasing strength and building muscle. One randomized, double-blind, placebo-controlled study from 2015 found that athletes using pea protein *alone* – that is, not part of a protein blend like Arms Race Vegan – gained the same amount of weight during the study period as those who took *whey* protein.[8] This says a lot about pea protein's effectiveness, considering that whey is the gold standard for protein supplementation for athletes and the supplement industry's go-to protein ingredient.

Another study, this one from 2019, replicated the earlier study's findings, but with a different training modality. This time participants performed high-intensity functional training (HIFT), which basically means a *CrossFit*-style workout.[9]

One of the reasons pea protein works so well is that it's highly bioavailable. The protein digestibility-corrected amino acid score (PDCAAS) for pea protein is 92.8 out of 100,[3] which is a pretty astonishing number considering that the PDCAAS of *beef*, the go-to protein source for untold numbers of weightlifters and bodybuilders the world over, is "only" 92.[10]

• **Brown Rice Protein**

Brown rice protein is often used in plant-based protein supplements to add some *methionine* into the mix, as most plant-based proteins are naturally low in the substance (unlike most animal protein sources, which, except for organ and offal meats, tend to be *high* in methionine). The dangers of excess methionine consumption are real, as high methionine levels can raise your blood levels of *homocysteine*, an amino acid that's been tied to cardiovascular disease.[11] However, we all need *some* methionine, and this ingredient will help you meet your body's requirements for it.

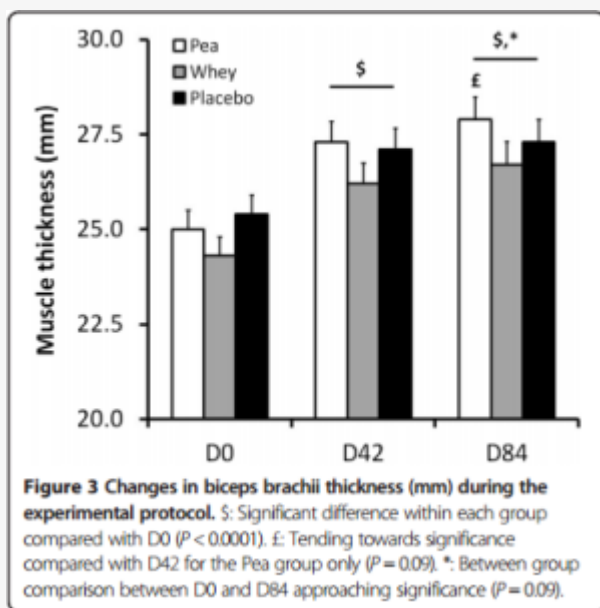
One of the reasons brown rice protein is so popular is that it's high in *branched-chain amino acids* (BCAAs), which are considered particularly effective at supporting the anabolic response and muscle protein synthesis. By weight, about 18% of brown rice protein's amino acids are the BCAAs *leucine*, *isoleucine*, and *valine*. [12]

Leucine has been identified as a particularly effective anabolic amino,[13-15] probably because it activates *mammalian target of rapamycin* (mTOR),[16-18] the metaphorical master switch of the whole anabolic response.

The synergistic effect of pea protein and brown rice protein

As a side note, one of the reasons we don't see brown rice protein used on its own is that it's low in the essential amino acid *lysine*. [4] As it just so happens, *pea protein* is very high in lysine, consisting of about 6% by

weight,[19] which is a high number for a single amino acid. That's why we see a blend of pea protein and brown rice protein in Arms Race Vegan. And it's also why complementary starch pairings, like *rice and beans*, are found all over the globe.



Pea Protein and Whey Protein were both significantly better than placebo (not surprising), but *not* significantly different from each other.[8]

The effectiveness of this combination can be seen in the change to the PDCAAS – again, pea protein alone has a score of 92.8, but the pea and brown rice protein combo brings that number up to 100.[20]

Still, brown rice is effective in its own right. A 2013 study found that for the purposes of building muscle and recovering from exercise, rice protein was just as effective as whey protein.[21]

Athletes may need extra methionine

You might recall us saying in the pea protein section that there may be some benefits in methionine restriction. At the same time, nutrient requirements vary from individual to individual. That goes for methionine, too.

Because intense exercise depletes the body of methionine,[22] *athletes* may have a significantly increased methionine requirement. Many athletes methionine levels are critically low, sometimes even as low as those who suffer with chronic illness.[23]

- **Vegan Branched-Chain Amino Acids (BCAAs) 2:1:1**

The **branched-chain amino acids** (BCAAs), as we said above, consist of *leucine*,

isoleucine, and *valine*. They get their name from their unique chemical structure, which visually resembles the branches of a tree.

Although *brown rice protein* is naturally pretty high in BCAAs, the BCAAs are so crucial for optimal muscle growth that Arms Race Nutrition added a little extra to the formula.



BCAAs are usually taken immediately before, during, or after a workout so that their absorption into the bloodstream peaks within the “anabolic window” that opens at the start of a workout (it’s disputed how long it stays “open” but 8 hours is a safe bet). They help increase muscle protein synthesis by activating *mTOR*, [1,13,14,21] an effect mostly driven by *leucine*, as we discussed above.

However, although leucine is the best of the three at stimulating *mTOR*, [24-29] all three BCAAs have been shown to inhibit *catabolism*, the breakdown of muscle tissue that occurs in response to increased energy demand, such as during times of stress or intense exercise. [30-32] All three BCAAs also have a documented ability to increase *athletic endurance*. [33-35]

One reason why the BCAAs have similar effects is that they’re all *isomers* of each other, [36,37] meaning that they have the same chemical *formula* but differ slightly in chemical *structure*. This is evident from the fact that one of the BCAAs is named *isoleucine*, which literally means “equal to leucine.”

The 2:1:1 ratio is the proportion of *leucine*, *isoleucine*, and *valine* found in this BCAA mix – there’s *twice* as much leucine as there is isoleucine or valine.

• DigeSEB (Amylases, Lactase, Protease, Lipase, and Cellulase)

Closing out this formula we have **DigeSEB**, a patented combination of five powerful digestive enzymes: *amylase, lactase, protease, lipase, and cellulase*.

The *first* thing to note about the inclusion of digestive enzymes is that they can help overcome an issue we brought up at the beginning of this article, namely that plant-sourced proteins tend to be less digestible and, hence, less bioavailable than animal proteins.

Here's a list of the enzymes in DigeSEB and what substance each one helps to digest:

- **Amylase** – starchy carbs
- **Protease** – protein
- **Cellulase** – *cellulose* (a type of insoluble fiber that occurs in plants)
- **Lactase** – lactose (a sugar that occurs naturally in milk)
- **Lipase** – *fats*

These enzymes are here to ensure you utilize as much of the protein-based ingredients as possible.



Also, some people experience gas, bloating, and flatulence when taking a protein supplement. These symptoms are caused when undigested protein gets fermented by the bacteria in your gut. Introducing digestive enzymes helps you avoid this outcome by ensuring your body digests protein as rapidly as

possible, before the microbiome has a chance to feed on it.

Symptoms of protein intolerance can indicate a digestive disorder, and, unfortunately, digestive disorders are quite common. At least 11% of the U.S. population has some form of chronic digestive problem.[38] However, this number is likely a radical *underestimate* of gastrointestinal disease prevalence. Researchers have found inflammatory bowel syndrome (IBS), the most common gastrointestinal disease in the country,[38] is undiagnosed in more than 75% of patients.



More than just estrogen balance – Arms Race Stabilize Hers is here to support women in far more ways than one!

For people with digestive problems, supplemental digestive enzymes can help. In one study, IBS patients who supplemented with *pancrelipase* (PEZ), a blend of digestive enzymes that are naturally produced by the pancreas, reduced the severity of symptoms like cramping, bloating, and diarrhea.[39]

Another study gave a different set of IBS patients a broader spectrum of digestive enzymes, along with some *prebiotic fiber*. The IBS-fiber combination was shown to reduce the severity of bloating, flatulence, and abdominal pain.[40]

Finally, patients with *functional dyspepsia* have been shown to benefit from supplementing with a blend of digestive enzymes, resulting in successfully reduced gas, bloating, burping, and flatulence symptoms.[41]

All of this is to say that if you've had bad gastrointestinal experiences from past use of protein supplements, the presence of DigeSEB *might* solve, or at least minimize, your intolerance of large protein doses.

Protease is the enzyme responsible for breaking down protein – and at least three of the other four enzymes will help too, since there *is* still a bit of starch, fat, and fiber in Arms Race Vegan.

We consistently notice that proteins made by brands that Doug Miller is involved in nearly *always* have digestive enzymes, and we love that he's staying so consistent with it!

Meanwhile, some may just be most excited about the *other* ingredients inside – the **inclusions!**

Flavors Available



Below is the full list of flavors of ARN Vegan:

Conclusion on Vegan Inclusions: An Arms Race Win

Arms Race Vegan is a solid protein powder by any standards, not just vegan standards. With delicious inclusion-based flavors, relatively digestive protein choices, extra BCAAs, and supplemental digestive enzymes to maximize bioavailability, in addition to vegans and vegetarians, we recommend this

protein powder to any athlete who's in the market for one.

Plus, we find it reassuring to see two protein sources, specifically those that have been shown to perform as well as *whey*, included in this formula.

Stay tuned for more from Arms Race, *more* flavor extensions in other products are on the way!

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