How EnSoil Algae is Made

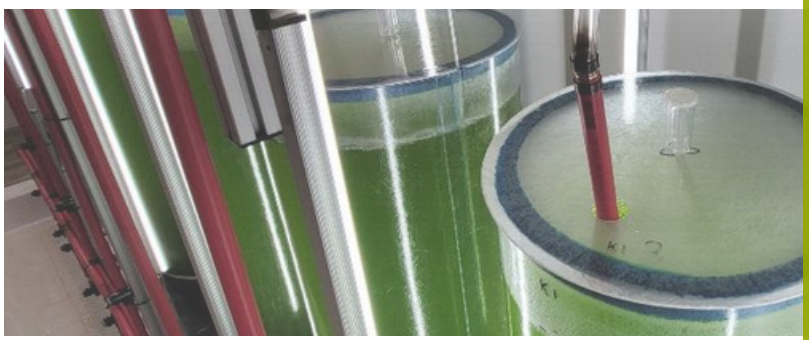
Growing EnSoil Algae is a carbon-neutral process using photosynthesis:

Algae inoculant + water + light + CO_2 →More algae + glucose + O_2.

The only byproducts of production are glucose and oxygen. CO_2 is removed from the atmosphere. There are no greenhouse gas emissions, and the process requires no hydrocarbon input. Electricity powers the production laboratory's climate control and equipment. It is not an industrial process, and the electricity needed to supply a 2000-3000 sq ft production laboratory averages less than 2000 kWh per month, slightly more than a 3500 sq ft home.

The finished product, EnSoil Algae, is a concentrate in water with at least 10 million algae cells/mL. One liter of algae concentrate, weighing 1 kg, is diluted with water to treat 4.5 acres of cropland or pasture, so the delivery weight is far less than that of granular NPK fertilizer (about 450 lbs/acre) or composted products (usually higher). Algae can be applied to crops and soil with irrigation water or standard spraying equipment. Consider this, the energy needed to produce, deliver, and apply EnSoil algae is much less than that required to produce and deliver milk, and the effect on climate is far less.

In striking contrast, the production of synthetic NPK fertilizer is an industrial process. Methane is burned to synthesize urea (N), and phosphorous and potassium compounds are mined. Estimates vary, but US agriculture produces as much as 5% of our greenhouse gasses, much of that from the production and use of chemical fertilizers. To quantify the environmental benefit of switching from NPK to live algae, multiply the number of acres where EnSoil Algae has replaced synthetic NPK fertilizer by the known environmental cost of NPK/acre. It is that simple.



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