Animal Nutrition

Soybean nutrients

Macronutrients play a critical role in animal nutrition. **Proteins** help to build tissue and enzymes, **carbohydrates** provide fuel for the body, and **lipids** protect tissue and aid in neural development. Animal nutrition experts create feed for animals by blending different macronutrients and minerals together. Grains are a primary source for these macronutrients and soybeans are an important source of protein.

Take a look at the soybean chart below. Soybeans contain protein, lipids, and carbohydrates. Use the linked nutrient testing pdfs to test for these macronutrients in soybeans: **protein test**; **lipid test**; **carbohydrate test**. Share your results with the class. Nutrient testing documents can be found at **grownextgen.org/curriculum/here-fishy-fishy**.

Nutrient testing materials:

- · Test tubes
- Timer
- Soybeans
- Disposable pipets
- Vortex
- Sudan III
- · Biuret solution
- · Distilled water
- · Lugol's iodine
- P1000 micropipetter
- Beaker (250mL)
- · Benedict's solution
- Stir sticks
- Test tube rack
- Microwell plates
- Corning hot plate
- Funnel
- · Filter paper

What's in a soybean?



