



Processing

From Biodiesel to SOAP!

Once soybean oil arrives at a soy biodiesel plant, it will undergo a process called **transesterification**. Transesterification is the process that will turn the soybean oil into fuel. This process removes a substance called glycerin from the soybean oil. Glycerin is a valuable by-product (a product made during the manufacture of something else) of soybean oil. Glycerin has thousands of uses. Glycerin is a powerful degreaser, which makes it wonderful for use in bar soap. (Note: Glycerin must be purified before it is made into soap.)

The yield of glycerin from the transesterification process is 20 percent. This means for every 100 liters of biodiesel you get 20 liters of glycerin. For every 20 liters of glycerin you can make 100 bars of soap! Use this information to help you solve the problems below.

WORKSHEET QUESTIONS

Matt has 300 liters of biodiesel. How much glycerin will be created?

How many bars of soap can Matt make with his glycerin?

Jessica made 200 bars of soap. How much glycerin did she have? How much biodiesel?

