# Soy Cultivation

Soy is cultivated around the world and is stimulating the world market. It has become the most important plant-based protein source. The countries with the largest soy acreage are the US, Brazil, Argentina and China. Due to the negative environmental consequences of large imports as well as the international use of genetically modified soy, Austria is planning to cultivate more soy on their soil. However, to date Austrian farmers know relatively little about its cultivation and are worried about financial and harvest loss.

As employees of the Austrian Chamber of Agriculture it is your task to find out how soy could be cultivated in Austria and to inform the farmers about the soy plant and its cultivation. Practical knowledge will be derived from your own observations in cultivation experiments and will be discussed during further lessons.

**Material**

* 4 rose pots per group (min. 2l, better 4l; it is important that the pots be at least 20 cm high, since the soy plant’s roots grow deep)
* 12 soy beans per group
* cress seeds
* 4 soil samples
* Pipette and solution
* material for the students to keep notes (pens, paper, labelling material etc.)
* watering can
* Analysis: scale, 1 tape measure per group

**Task**

Use the soil samples 1-4 to find out under which conditions soy plants grow best. Observe the different pots and take notes during the course of a couple of weeks (at least 4-5). Come up with a hypothesis regarding the differences in growth, which will be visible after 4-5 weeks. Think about how to test your hypothesis. Take notes of your results and write an information letter to the farmers.

Instructions for soil samples 1-2:

* put the soil in the labelled pots
* using a pen, create three holes each 2 cm deep in the soil
* put one soybean in each hole
* cover the holes with soil
* water the soil

Instruction for soil samples 3-4:

* put the soil in the labelled pots
* using a pen, create three holes each 2 cm deep in the soil
* put one soybean in each hole
* using a pipette, put 2ml of the solution onto the soy bean
* cover the holes with soil
* water the soil

During the upcoming weeks you should water the pots every 2 days!