

# Charcoalab Instructions

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## Kit contents (provided):

- Charcoal
- 6 pots
- Litmus paper

## Additional material (required):

- 12 kernels of corn
- Soil  
Gather enough soil to fill the 6 pots.
- Ruler
- Large tray covered with newspapers  
Large enough to contain the 6 pots.
- Permanent marker
- Jug  
To water the plants.
- Camera  
A camera which can date images is ideal, otherwise please keep track of the day you take the pictures and provide the date when you upload your photos!

## Partners:



<http://www.safe.biz>

## 1. Prepare the pots

Initially, prepare the pots by filling them each with some soil. Be careful! Three of the pots will contain charcoal (the *test pots*), while the three remaining pots (the *control pots*) will only contain normal soil and will allow you to compare the effects on the plants of charcoal addition in the soil.

- Label the pots: *C1*, *C2*, *C3*, *T1*, *T2* and *T3* (respectively). The pots with a letter *T* are the *test pots* while the pots with a letter *C* are the *control pots*.
- Fill the 3 control pots *C1*, *C2* and *C3* with normal ground soil.
- Fill the 3 test pots *T1*, *T2* and *T3* with normal ground soil.
- Empty the first test pot *T1* into a baggie of char. Close the bag and shake vigorously, ensuring the char and soil are thoroughly blended.
- Empty the mix back into the test pot *T1*.
- Repeat with the 2 remaining pots (*T2* and *T3*) and baggies, until you have all 3 test pots filled with the char and soil blend.
- Water the pots so that the soil is moist in each one and use the litmus paper to measure the pH of the soil in each pot. Record this pH measurement to submit it on the Charcoalab website.

## 2. Sow the seeds

Your pots are ready? Then, add the seeds!

- If you were not supplied with seeds, please source some seeds commercially/retail and photograph the front and reverse of the packet, being sure to get a clear image of the species, brand and instructions for germinating/planting etc. and submit these online using your username and password.
- In each pot make a small hole with your finger in the center of the soil. The hole should be about 2 cm (1 inch) deep.
- Put 2 kernels of corn at the bottom of each hole and cover the hole with soil.

## 3. House your plants

Now you need to find an appropriate place where you can house your plants, observe them, take your measurements and take pictures!

- Place ALL 6 planted pots onto the large tray lined with newspaper and place the tray in a well lit area
- If you have not done so, connect to the Charcoalab website and log in.
- Submit the pH values you measured when you prepared the pots.
- If you can, take some pictures of your plants and submit them online with the current date.

## 4. Taking care of your plants

CONGRATULATIONS, your trial is ready! But your job has only begun! You need to look after your pots very carefully: do not forget to water them EVERY day!

- Every day, check the soil in each pot: if it is dry, take the jug and water it. Make sure that the soil always remains moist!
- After the first week, you should already see shoots coming up in the pots. In the pots where both seeds germinated, select the “healthiest” shoot at about 2 cm high and remove the other one. This will give more space to the remaining plant to develop, and more chance for it to grow successfully!
- Every week, measure the height of your plants and make any relevant observations (leaves, vigor etc.), then log in on the Charcoalab website, go to the webpage for the corresponding week and submit your results. Feel free to add any comments you want!
- Every week, if you can, take some pictures of your trial and submit them online with the date they were taken.
- At the end of the experiment, use the Litmus paper to measure the pH of the soil in each pot. Then log in on the website and submit your results.

On the right, you can see the complete schedule for your Charcoalab experiment. Every day, after watering your pots, mark the day with a cross to see your progress!

We hope you will enjoy your Charcoalab experiment!



### IMPORTANT

Do not forget to submit your results!

<http://www.charcoalab.org>

Contact us!

We are waiting for your questions and comments:

[info@charcoalab.org](mailto:info@charcoalab.org)

## Charcoalab Schedule

Project start: .../.../...

Week 1

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

Week 2

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

Week 3

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

Week 4

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

Week 5

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

Project end: .../.../...