

Local issues



Droughts that are more recurrent



Heat problems in Avignon (sometimes up to 45°C)



Regional agricultural soil degradation (gets dry quicker than the standard ones)

Our Solution : Compost powered soil

Could be a saving water solution by keeping humidity

Could make the plants grow faster

Could be a solution to preserve soils

Involves us in school and regional environment goals

Can become a way to heighten awareness of people, schools, companies to develop composting

Experiment 1

Take soil from our school's garden

2 pots : one with soil only and one with soil + compost

Put in each 15 radish seeds

Pour water until they both reach a high level of moist (8/10)

Measure humidity and size of the plants during 12 days



The soil with compost kept moisture better than the soil without compost (5,5 vs 3) after 12 days, and the radishes grew taller in the compost pot (5.69cm vs 4.4cm on average).

Compost : A water saving solution

Experiment 2

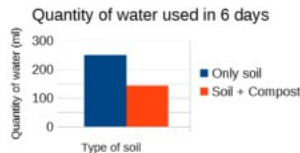
2 pots : one with only soil, and one with soil + compost

Put in each 15 radish seeds

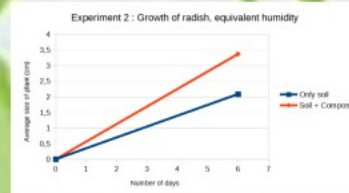
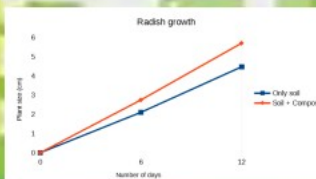
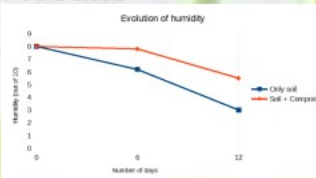
Pour water until they both reach a high level of moist (6,5/10)

Put the ceramic plant waterers with bottles in each pot

Measure humidity and size of the plants during 6 days



Results



Discussion

Our experiments confirmed that compost is a water saving solution and a fertilizer. We plan to use this project as an incentive for people to recycle food wastes by composting at the city level and use the compost on cultivated lands to save water and enrich the soil.

Components for our two experiments



4 pots



60 radish seeds (15/15 and 15/15)



A moisture meter



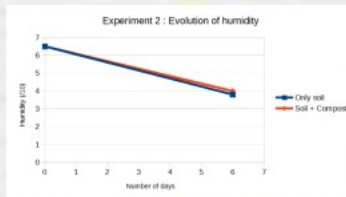
Soil from our school's garden + Compost



2 Ceramic plant waterers (only for Experiment 2)



2 bottles with 250 ml of water (only for Experiment 2)



The soil with compost used less water than the 'only soil' pot (143mL $\Rightarrow$ 57% of the bottle vs The whole 250 mL used), and the radishes grew taller with compost than without compost.