# Dandelion experiments

The 6 seed species are:

Lemon balm

Lettuce

Kohl Rabi

Sunflowers

Chives

Beetroot

Growing outdoors

Secondary schools will receive seeds for growing In the cube and a set of the same seeds for growing outdoors.

Tattie Growing in the Wider School Community

Three questions for community growers to feedback through the Dandelion website.  **Survey is**at <https://dandelion.scot/tattie-survey>

* Weight of your potato harvest in kg
* Count of all potatoes
* What was the container they were grown in?  e.g. Bucket, Bag for life

Plants in cube Set-up

* Each tray will have all 6 plant species growing in a random pattern, like a patchwork quilt.  There will be 4 patches of each plant species per tray.  Randomisation process will be at school level. **The school should record in the app. the placement of each species patch (as per the attached templates) so measurements can refer to it.**
* Plant species in each tray will have homogenous water levels and nutrient levels.
* Timer settings for lights on or off **– All lights to be turned off between 8pm and 4am (8 hours off, 16 hours on)**
* **All schools should do the same experiment first, beginning with the tickling one.**

CUBE Experiments:

**1)** Impact of levels of nutrition.

* + time to germination
  + time to cotyledon
  + time to 1st true leaves
  + growth rate        - measured in mm/same days each week **(as an average of 3 or so plants that look typical)**
  + average height, **final measurement just before harvest** Could the final growth rate reading be used, perhaps appearing separately as the final average?**BRIAN**
  + Mortality rate – counted with date/ must be translated into a percentage. (10 seeds per patch makes this easy to calculate)
  + Leaf colour - O**ptions set as 5 colour options as in the attached .xlsx (pale yellow, bright yellow, light green, mid green, dark green)  ALSO  a text box to record remarks on observations e.g. leaves are patchy**
  + Yield per treatment– **calculated by weight in grams** **to 2 decimal places if possible**

**AT HARVEST**

* Taste of 6 species – include textbox for own descriptor
* Feel of the **leaves (NOT the stem)** for each of the 6 species - waxy, soft, smooth
* Smell of 6 species – include textbox for own descriptor
* How did you feel about eating the microgreens? - Text box for own description

**2)** What happens to growth if leaves are tickled with a paintbrush?

* + vigour score   - **Scale of 0 - 5**
    - **0= dead;**
    - **1 = stems very thin and weak (like thread)**
    - **2 = stems quite thin and slightly weak**
    - **3= some stems moderately thick and getting stronger**
    - **4 = most stems moderately strong and thick (springy to light touch)  (like soft brush)**
    - **5 = all plants very strong with thick stems (more rigid to light touch) (like brush)**

**This is a subjective score so different people will score differently.  It is important that a consistent person or group generates the score.**

* + time to germination
  + time to cotyledon
  + time to 1st true leaves
  + growth rate        - measured in mm/same days each week
  + average height
  + Mortality rate – counted with date/ must be translated into a percentage. (10 seeds per patch makes this easy to calculate)
  + Leaf colour
  + Yield per treatment
* **AT HARVEST**
* Taste of 6 species – include textbox for own descriptor
* Feel of 6 species - waxy, soft, smooth
* Smell of 6 species – include textbox for own descriptor
* How did you feel about eating the microgreens? - Text box for own description

QUALITATIVE experiments for ***food grown outside***:

**3)**How did it taste?

·  6 options of species

* + - text box for own descriptors
    - text box to describe how the food was presented/how cooked/what dish/raw

**4)**What did you feel about eating the plants

· 6 options of species

* + - Text box for own description