1. Calculate vegetation index for each pixel
2. Choose an upper threshold a and a lower threshold b. If index>a mark it as foreground, if index<b mark it as background, if b<=index<=a, leave it unmarked
3. Perform graph cut on the primary scribbles obtained in setp 2
4. Fiddle with the parameters a and b and pick the one which obtains the best segmentation
5. Extract the following morphological features from the obtained segmentation:-

* Leaf arrangement
* Leaf venation
* Leaf shape
* Leaf margins
* Leaves per plant
* Vegetation index information/colour
* Length of leaf wrt plant size
* Width of leaf wrt plant size

1. Plot the data. Perform PCA if necessary
2. Feed the above features through separate channels into a CNN and train the model for classification
3. Check the difference obtained by training a UNet directly with the RGB images
4. Now, repeat the above steps but this time without graph cut, but using the segmentation obtained by the model that was trained during the summer
5. Artificially generate more data with various combination of above features separately for crop and weed and see whether further training on generated data improves the accuracy.