***AH 2.1 Carry out a practical agriculture or horticulture investigation with supervision. Credits: 4***

This achievement standard involves carrying out a practical investigation, with direction,

1. by planning the investigation,
2. collecting and processing the data,
3. and interpreting and reporting the findings.

**Investigation:**

**Purpose** is a question or statement you are going to find the answer for or prove right or wrong.

**Independent variable:** is the variable you are varying to find out about the purpose.

**Dependent variable:** is the variable(s) you are measuring.

**Controlled variables:** Suggest at least 3. All other variables must remain the same.

**Reliability:** More then one test

**Method:** Set out so a Y9 student could carry out the investigation without asking you what to do. Use a numbered step by step method. Diagrams are essential.

***Present a Report***

Present a report on your investigation. This will include your:

1. planning sheet
2. detailed step-by-step method, including any changes made during your investigation.
3. recorded data
4. **processed** data, - changed data (averages or percentages) as a table and or graph
5. interpretation of results -what’s it **all** mean
6. a conclusion that links to the purpose of the investigation - did you solve the question of prove the statement right or wrong.

For both Yes and No - discuss.

An ***Evaluation*** of the conclusion in terms of the method used.   In this you need to comment on the

1. reliability of data (repeats etc). (have you collected enough- are you sure)
2. limitations to the investigation (sources of error etc) (what could you change, no investigation is perfect.)
3. changes made to your original method. (what did you change)
4. agricultural ideas related to the investigation that would explain the results you obtained. Tell the farmer why you made the choice and link it to how **why** the mulch works and how it holds the water in the soil. Remember the magic words. Consider it from a PRACTICAL (is the best Mulch actually useable ?) point of view.

Percentage Calculation - lets you compare data with different starting values.

Wt 1 = 180 Wt 2 = 160 (-20 g) % wt loss = **20/180** \*100 = 11.1 % wt loss

or

Wt1 = 220 Wt 2 = 195 (-25 g) % wt loss = **25/220** \*100 = 11.4 % wt loss