Student 5. **Site Establishment.**

Site establishment is a very huge factor to create a variable apple orchard and business to last over time, this is because for a site to be used it must suit the growers needs by supplying a climate suitable, suitable topography, a suitable soil fertility and soil type and these must all fit together like a puzzle to establish a successful orchard.

Climate: For a site to be selected the climate must be suitable for the apple crop being grown in terms of;

- Rainfall – some cultivars are susceptible to rotting which may end in dying or diminished quality, if a high rainfall site is used.
- Sunlight hours – some cultivars need a long hot summer to ensure proper fruit ripening and to help with colour production. If sunlight house are too low growth will be stunted.
- Frost risk – fruit crops generally like a good winter frosts to kill off diseased and to aid flowering but a frost at the wrong time could wipe out a whole crop [1].

Topography: For a site to be selected it must suit the apple crop and machinery which will be used to maintain and harvest the crop in terms of;

- Easy machinery access – machinery must be able to access the site to maintain an build the crop up to harvest, if an insecticide machine sprayer could not make it way to and from the orchard then other options must be taken, either by hand spraying the whole crop or by not doing anything which will seriously deteriorate the crops produce.
- Easy pick up of produce – trucks or freight must be able get to and from the orchard easily to avoid extra costs during transportation of the final product.
- Contour – must be suitable for the crop being grown as generally a flat site would be preferred when growing apples.
- North facing – generally North facing slopes receive more sunlight, this would be especially important in areas of low sunlight or when using cultivars that thrive with more sunlight [2].

Soil Type: This must suit the crop being grown on the land in terms of;

- Soil loam – the soil loam must suit the crop as different crops require different needs, some thrive on moist soils while some thrive on drier soils, so this will determine the soil type being used [4].
- Soil fertility – must suit the needs of the grower and the cultivar he is growing and the density of this system, low fertility soils are generally used or high density systems as it doesn't allow as much growth as fertile soils on a low density system, high fertility is generally not high density as the crop usually grows too much for the systems and its requirements [3].