

Student 4.

1. Site Establishment.

Climate: In site establishment, climate is very important because you need a temperate climate to grow apples. You need a good amount of sunshine hours there are 2200 sunshine hours per year in Hawke's Bay with temperatures of around 18 – 25 degrees in spring / summer and winter temperatures no lower than 5 – 10 degrees. It is also good to have a low summer rainfall and a place that has low amounts of wind [1].

When the apples are ripening and colouring the trees should be put under stress. This helps to bring the brix levels up in apples and helps with the colouring of the apples [4]. Only the bright red apples that have no defects on them are picked and where the apples are diseased they are obviously binned. There is a slow decline of water in the root zone from January to harvest (picking) this helps to stress out the tree and helps with raising the brix levels and colouring of the apples. Frosts during winter are harsh this helps chill the tree for bud burst, sap flows slow this make it good for pruning as the tree loses less sap.

Topography: When growing apples it is common sense to have flat land on an orchard because trees don't grow as well when they are on a hill side and when you spray the orchard your tractor and spray unit can't slide around. You can spray the apple trees more consistently, this means you get less pests and diseases and better fruit growth due to less pests and diseases you will also have successful crop yields [4] and improved profit for the orchard. On the orchards land, it is good to have flat land for the apple trees to allow for easy access for machinery like hydra ladders, bins, tractors, spray units, and any other machinery that many be used on the orchard [2].

On the orchard you also have to makes sure that each apple tree is faster / easier, safer for the harvest person to prune and also train because these days pruning is an important management practice carried out on an orchard. On the orchard it is important to make sure the trellises are easy to erect and that the roads / tracks on the orchard are all easy to get around and easy to move machinery around the sections of the orchard.

Water availability: In site establishment there must be available water. On the orchard water is used for a lot of purposes e.g. spraying, irrigation, frost protection is also good for maintaining health of apples this helps them stay on the tree and carry on growing [3] and also processing if needed. When an orchard is sprayed you need to use water for the spray and also for irrigation when at times the whole orchard needs to be irrigated at once usually it is one a couple varieties of apples that need irrigation but still when irrigation is done a large amount of water is used to keep the apple trees in a healthy state. There is also processing that comes under water availability where some orchards have their own processing sheds and pack houses where most of the apples are graded and then exported for overseas only the top of the class apples are sent away overseas and the apples that aren't quite good enough to send overseas are kept to sell in local supermarkets and around New Zealand.