

Whangarei District Plan Hearings PC114 Landscape

Grower case study for Whatitiri – Growing avocados on Whatitiri

I am John Wiessing and I grow avocados on 30 hectares at 326 Whatitiri Rd, on the western side of Whatitiri hill.

My orchard is located within the Whatitiri ONF and in the Rural Production Environment Zone.

The reasons why I grow at Whatitiri is because of:

- 1) Fertile soils
- 2) Proximity to reticulated water supply from the Maungatapere Water Company

Challenges with growing in the area are:

- 1) Tree health decline due to root rot (phytophthora) which is exacerbated by root saturation. This is remedied by replanting more tolerant clonal rootstocks on mounded or terraced well drained soil.
- 2) Tree and fruit damage from wind. This is reduced by planting shelterbelts or erecting artificial shelters

As part of the avocado growing operation we undertake:

- 1) Preparation of planting sites by digging drains or swales, ripping, mounding or terracing or stepping land to create flat platforms
- 2) Irrigating, spraying ,fertilising, and picking

Land preparation:

The land preparation involves:

1. Either mounding or terracing and/or ripping
2. Installing surface drains

Mounding (or ridging) involves moving topsoil from the inter-row space to create a ridge or mound along the planting row. Typically rows are 7 to 10 meters apart and the height of the mounds are 700 to 1000 mm, therefore 350 to 500 mm from the original ground level. Mounding is normally done on ground with less than 10 degree slope.

Terracing (or stepping) involves moving topsoil to create flat areas along the contour lines. Again row spaces are 7 to 10 meters apart and the height of the terrace faces are 1 to 1.5 meters. Because of the cut and fill this means the original level soil is altered by 0.5m to 0.75 m. Terracing is usually done on slopes above 5 degrees.

The purpose of mounding and terracing is to create a drier root zone which leads to better tree health and therefore improved productivity.

Background:

After WDC released the first draft of the 114 Plan Change another grower, Dave Routley and I, met with Glenn Mortimer and voiced our concern that land preparation for planting avocados by mounding or terracing would not be a permitted activity according to the Activity Table earthwork volume limit and the land preparation definition (which excluded ripping and mounding).

Glenn later informed me that the definition would be changed to allow ripping and mounding. We need to be sure that these activities are included in the definition for land preparation and are provided for.

Earthworks

Earthworks is defined in the Plan as: *any modification to the shape of the land surface, including removal of soil, excavation, infilling, re-contouring and construction of any road, track, landing or drainage channel.*

Activities that growers would undertake that are covered by this definition include:

- 1) Digging surface drains
- 2) Levelling building sites
- 3) Constructing access races
- 4) Levelling or contouring blocks after surface rock removal

Typically surface drains are 1 metre wide and 1 metre deep and are the length of the block, say 120 metres, therefore 120 cubic meters per hectare
For a typical site for an implement shed of 250 square meters on the average 5 degree slope approximately 150 cubic meters would be removed.

Buildings

The main types of buildings that growers need to construct are:

- 1) Implement sheds for machinery and bin storage
- 2) Dwellings

Implement sheds are typically 200 to 300 square metres and up to 6 metres high. The proposed 5.5 metre height limit would be adequate for most sheds.

A restriction on colour for landscape purposes such as dull and dark greens, greys, browns and blacks, would be supported as a sensible mitigation tool.

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Grower case study for growing Kiwifruit

I am Mike Crum and with my wife Cathy (trading as MP and CJ Crum Ltd) we have a 20ha organic kiwifruit orchard at Maungatapere on Northern side of Whatitiri Mountain. We also have an orchard contractors and beekeeping business.

Our orchard is located within the Whatiriti ONF.

We grow at Whatatiri because of the:

- Fertile volcanic soils
- Proximity to irrigation water supplied by Maungatapere Water Co.

Challenges with growing in the area include:

- Vine and fruit damage from wind. This is eliminated by erecting artificial shelter cloth.
- Shelter cloth provides the added advantage of a higher TZG due to warm environment created.

Land preparation

Some of the activities undertaken as part of growing Kiwifruit on Whatitiri include land preparation as kiwifruit require structures and planting preparation that require digging holes for both posts and plants.

Earthworks

We also undertake earthworks for loading pads which are needed as our vines mature and hence our crops have higher volumes. Such loading pads would generally need to be 50m by 50m in the near future to comply with trucking and forklift health and safety requirements. We already had a close miss this season because the pad was too small.

Buildings

As employers of a fulltime workforce of up to twenty eight staff and up to sixty – seventy people during the year we use Tatton Road as our base. Sheds are needed to store machinery, and fertiliser while not in use. As our business expands our shed base also expands. The requirements for most orchards are already restricted with health and safety laws.

Artificial crop protection structures

We use structures to provide protection to our crops with the colour requirements for cloth needing to be lighter in colour to allow in light. Dull colours prohibit photosynthesis of the leaves which lower the Taste Zespri Grade (TZG).