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NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

SUPERVISOR'S USE ONLY

Level 1 Agricultural and Horticultural Science, 2018

90919 Demonstrate knowledge of soil management practices

9.30 a.m. Thursday 22 November 2018
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate knowledge of soil management practices.	Demonstrate in-depth knowledge of soil management practices.	Demonstrate comprehensive knowledge of soil management practices.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL the questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–11 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

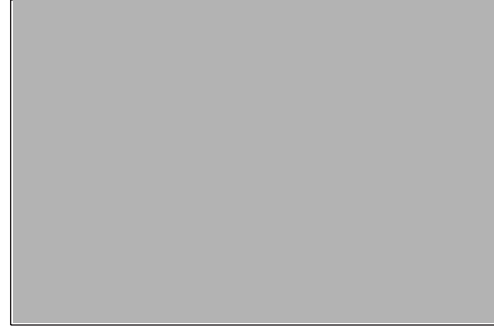
TOTAL

ASSESSOR'S USE ONLY

Soil texture refers to the size of the particles that the soil is made up of.

Centre pivot irrigator

Gun irrigator



More space for this answer is available on the next page.

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The examination continues on the following page.**

QUESTION TWO: SOIL TESTINGASSESSOR'S
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A soil drop test is when a spadeful of soil is dug up and then dropped onto the ground. The soil then breaks into peds, which are clumps of soil.

Soil drop test

- (a) Explain how the size and shape of the soil peds show what the drainage and aeration of that soil will be like.

After completing a soil drop test, a grower noticed that the soil had very little organic matter.

- (b) Describe a management practice that could be carried out on soil to improve its organic content, and explain how adding organic matter will affect soil properties.

(c) Justify why a grower would apply lime to the paddocks.

- how lime can be applied to soil
- how lime affects the physical, chemical, and biological properties of soil
- the effects on plant growth.

The nutrient status of soil is very important. Nutrients in the form of fertilisers need to be applied to the soil in specific ratios.

(b) Select the better method, and justify your selection by comparing and contrasting it with the other management practice.

In your answer, consider:

Extra space if required.
Write the question number(s) if applicable.

ASSESSOR'S
USE ONLY

QUESTION
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