

Module Title:	Soil and Nutrient Management on Organic Farms		
Language of Instruction:	English		
Credits:	5		
NFQ Level:	8		
Module Delivered In	2 programme(s)		
Teaching & Learning Strategies:	Formal lectures, field studies and laboratory work will be used engage the student in the importance of soils in a sustainable organic agriculture system. Where appropriate, case studies will be used to demonstrate the benefit of soil remediation on crop growth.		
Module Aim:	This module aims to build upon Soil Science 1, further enhancing the students understanding of the importance of soils in a sustainable agricultural system. Specifically, this module will focus on the maintenance of soil organic matter and its importance in soil structure and soil nutrient cycling. Completion of a nutrient balance and options for nutrient additions to organic farms will also be studied.		
Learning Outcomes			
On successful completion of this module the learner should be able to:			
LO1	Demonstrate an understanding of the principles of soil management in organic farming		
LO2	Demonstrate an understanding of nutrient management in organic agriculture		
LO3	Demonstrate how to improve soil organic matter in a range of different organic farming enterprises		
Pre-requisite learning			
Module Recommendations			
This is prior learning (or a practical skill) that is recommended before enrolment in this module.			
8636	FARM H2703_1	Concepts in Soil Science	
Incompatible Modules			
These are modules which have learning outcomes that are too similar to the learning outcomes of this module.			
No incompatible modules listed			
Co-requisite Modules			
No Co-requisite modules listed			
Requirements			
This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.			
No requirements listed			

Module Content & Assessment

Indicative Content

Soil Fertility

The learner will explore the properties that contribute to soil fertility including characteristics, qualities, and processes. Practical soil profiling will assist in the identification of soil types and fertility potential which will enhance the classroom-based learning

Macro and Micro-nutrients

Identification of the role of the macro and micro nutrients required for organic plant production will be explored. Learners will interpretate results of soil analysis. Key nutrient organic materials such as composting, farmyard manure management, grain and forage legumes, green manures and other nutrient applications permitted under the organic regulations will be explored. Practical applications will include the completion of nutrient budgets for selected organic farms. Farm visits and case studies will assist in the practical learning.

Organic Matter

The importance of soil organic matter and the role it plays in nutrient management will be explored. Key aspects affecting soil organic matter such as cultivation techniques, mulches, drainage systems, soil protection and actions to prevent erosion and preserve soil organic matter will be examined. Practical work and field visits will be used to supplement formal lectures.

Assessment Breakdown	%
Continuous Assessment	50.00%
End of Module Formal Examination	50.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Complete a nutrient management plan for a farm based on a soil analysis and all management factors including the long term improvement of soil organic matter.	1,2,3	50.00	n/a

No Project

No Practical

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	Terminal Examination	1,2,3	50.00	End-of-Semester

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Every Week	1.50
Practicals	Every Week	1.50
Independent Learning Time	Every Week	3.00
Total Hours		6.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_SWOAG_B	Bachelor of Science (Honours) in Organic Agriculture	5	Mandatory
CW_SWOAG_D	Bachelor of Science in Organic Agriculture	5	Mandatory