



Unit 11A

The Circular Economy in the Agriculture Sector

Closing the Nutrient Loop

1 Introduction

Unit 11A provides resources for vocational trainers seeking to incorporate the circular economy into their courses in the Agriculture sector, focusing on harvesting crops and the different types of nutrients and their correct use. This unit explores the importance of replenishing the land with these nutrients, focusing on their relevance to the soil, as well as identifying appropriate nutrient recycling and regenerative techniques to avoid the over (and) misuse of fertilisers.

2 Learning Outcomes

Knowledge	Understand which nutrients are important for the soil and why.
Skills	Identify appropriate nutrient recycling and regenerative techniques in order to avoid a possible overuse of fertilisers.
Competencies	Implement a circular economy approach to nutrient management in the agriculture industry.
EQF Level	This material is mainly suitable for EQF Level 4

3 Lesson Plan

Method	Description	Suggested duration in minutes (total minutes)
Brainstorming session	Brainstorming where you as a trainer write down definitions, notions and connotations ought to be used for future discussions and references. You can continue the brainstorming session with the following questions if needed: <ul style="list-style-type: none"> ● Discuss the importance of nutrients and their different functions and types, focusing on issues like intensive farming fertilisation to replenish 	15



	nutrients lost from the soil. Which methods might be the most sustainable ones?	
Presentation by trainer using PPT	Overview	30
	Unit Learning Objectives	
	Video watching	
	Discussion Points	
	Nutrient Recycling: The Nitrogen Cycle	
	Circular Economy Approach to Nutrients	
	Case Study: ReNu2Farm	
	How to Close the Loop: Increasing Nutrient Efficiency	
	Case Study – Agrocycle	
Discussion Points		
Assessment	Quiz	15

4 Quiz

1. Which three elements are most vital to the soil for plant growth?

Answer: Nitrogen, Phosphorus and Potassium.

2. What are herbal leys?

Answer: Temporary grasslands made up of legume, grass and herb species.

3. What is Agroforestry?

Answer: The incorporation of trees into cropland.