

LESSON 7

Key Question: How can a cropping system be developed that appropriately responds to environmental stress?

Objective(s):

- Design a suitable cropping system for production of a crop under conditions of environmental stress using appropriate techniques and technologies.

Timing (minutes)	Activity
0-10	<p>Students work in pairs to consider this question:</p> <ul style="list-style-type: none"> • What are the environmental stresses that affect farms in the Caribbean? <p>Teacher facilitates feeding answers back to class.</p>
10-40	<p>Students work in the same groups as last lesson to consider their cropping system design, working on making their farm more resilient to environmental stress.</p> <p>Task for higher ability students: If students worked through this during the last lesson, either they can apply their learning to a different farm scenario, or they can design their own scenario for a larger farm business.</p> <p>As before, students should work out a tillage and residue management system, cropping system, as well as nutrient and water management with justifications, and state any erosion control practices they recommend. Many of these decisions will be different as they focus on preventing environmental stress, rather than maximising yields.</p> <p>Students can either draw an alternative farm layout, or show the changes on their cropping system from last lesson. They should show where the features of their system will be on their diagram and be able to explain their decisions.</p>
40-60	<p>Conclusion</p> <p>The groups present their cropping system to the rest of the class. Either by the class rotating around the desks to listen to each group, or by each group standing at the front to explain their cropping system and decisions.</p>

	<p>The teacher facilitates discussion on when choices between maximised yield and resilience to environmental stress need to be made, asking the students:</p> <ul style="list-style-type: none"> • What they think the yield/economic impact of their decisions will be?
Homework	<p>Individually, students summarize their integrated cropping system (including yield and resilience to environmental stresses) and explain the reasoning behind each component. This should be a brief/summary of the system and writing should not be more than 2 sides of A4.</p>