

Lesson Plan (LP) Author: Hannah McTier

Course: Basic Agricultural Science (02.47100)

LP Title: Squash Production Practices and their Sustainability

Estimated Time: 90 minutes (Two 45-minute class periods)

Grade Level: 9th - 12th Grade

Materials, Supplies, Equipment, References, and Other Resources:

Materials: class-wide access to technology or library for research purposes References: https://www.georgiaffa.org/curriculum2/topic.aspx?ID=6&TID=29, Caroline Waldrep's

Beef Industry Discussion Meet lesson plan and rubric as a guide

Standards:

AFNR-BAS-12 Apply principles of environmental science as it relates to agricultural production and sustainability.

12.3 Compares and contrasts current production practices such as organic, naturally raised systems, and conventional agricultural production with regard to their sustainability.

Essential Questions/Objectives:

The student will be able to...

1. Compare and contrast current production practices used to grow squash by participating in a class discussion meet.



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Accommodations

For students with disabilities, the instructor should refer to the individual student's IEP to insure the accommodations specified in the IEP are being provided within the classroom setting. Instructors should familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation within any given instructional activity or requirement.

Interest Approach

Estimated Time: 10 minutes

Write the following three terms on the board: organic, certified naturally grown, and conventional. Allow the students to share out what they believe these terms mean and the implications of choosing to farm a certain way. When the discussion begins to wind down, assign students to three teams with the topic for each team being one of the terms listed above. Then, introduce the discussion meet assignment.

Learning Activity 1	Estimated Time: 35 minutes
Instructor Directions/Materials/ Teaching Procedure	Brief Content Outline
Preparing for the Discussion Meet Go over rubric Assign students to groups Walk around the room and answer questions about opening/closing statements, rules, etc.	Explain that students will have a discussion-meet style debate over using organic, certified naturally grown, or conventional production practices to grow squash. Inform them that a discussion meet is not as formal as a debate, in that students will need to make sure they are speaking enough but not keeping other students from speaking. This element of the discussion meet, among others, will be addressed in the rubric. Explain that students will need to follow the rubric to earn an appropriate participation grade for their performance. Students can
*I recommend changing the layout of the room. If you have desks, then create two circles, with the smaller circle being inside the larger circle. The students who will be actively arguing will sit in the middle, smaller circle, with the remainder of the class sitting around them observing.	have the remainder of class to do additional research and write their opening statement in support of their assigned production practice. The statement will need to include their position on the topic, as well as evidence on why they feel that way, and will need to be no longer than one minute. Inform the students that they will need to come prepared to participate in the discussion meet the next day. If they did not have enough time to gather information to support their argument, then they should continue their research at home or in the library after school.



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Learning Activity 2	Estimated Time: 35 minutes
Instructor Directions/Materials/ Teaching Procedure	Brief Content Outline
Go over rubric again Walk around the room and answer remaining questions Conduct discussion meet Remind students to be polite and respectful of peers, especially those observing and not actively participating at the time	There will be three initial rounds of the discussion meet with the top student from each round moving on to the final round. Each individual round will be one of the three groups pitted against one another to determine the final representative for each group (i.e. all of the students charged with researching organic squash production practices will be pitted against one another to determine the groups' spokesperson in the final discussion meet). The final round will consist of the top scoring student from each of the three categories. There will be three eight-minute discussion meet rounds. The winner of each round (3 total) will compete again in a final tenminute round. Students will be scored on the given rubric based on the three initial rounds. Extra credit points should be awarded to the three students who make it to the final round. *Another method is to place at least 2 supporters from each group into the initial rounds (2 organic, 2 conventional, etc.) to argue and determine a winner that way before moving on to the final round. You cannot control what groups will make it to the final round with this method, though.

Summary (Reflection)

Have students create a summary statement based on what they learned about organic, certified naturally grown, and conventional production practices during the discussion meet to turn in before leaving class. Ask for some students to share their main takeaways and link it back to the interest approach discussion that was held at the beginning of the lesson. Do students still feel the same way they initially did? Have they changed camps? Is one production practice better or worse for growing squash? For people? For nature? Economically?

Estimated Time: 10 minutes

Assessment

Formative: Assign a formative grade based on student performance in the discussion meet. They will be graded on the given rubric and will also have the chance to earn bonus points based on their final ranking in the class.

Summative: N/A



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TOPIC: Participants' Names	F	Participants	s' Names
	Total of 600 points possible. Superior - 100 Excellent - 80 Good - 60 Fair - 40 Poor - 20		
	(1) Delivery: (100 points) Voice quality, loudness, clear enunciation, communication skills. Interesting choice of words.		
	(2) Problem Solving and Implementation: (100 points) Ability and judgement in seeking answers and solutions, planning and organizational understanding.		
	 (3) Cooperative Attitude: (100 points) A. Listening, asking pertinent questions, airing all points of view securing major agreement, minimizing major differences. B. Courtesy to other participants, encourage discussion from other participants. 		
	(4) Analysis of Topic or Problem: (100 points) Does competitor attempt to identify problem causes and remain on topic? Knowledge, extent, and accuracy of facts.		
	(5) Opening Statement: (100 points) Definition of problem, importance, causes, effects, relevancy of problem.		
	(6) Closing Statement: (100 points) Ability to summarize discussion and formulate direction for the future.		
	TOTAL: Total score for each student is to be tabulated by judge. Any tie scores are to be broken by judge.		
	RANK: Rank competitors 1(highest)-6(lowest)		



