

Scout: _____

Let It Grow!

This module is designed to help you explore where your food comes from and how agriculture affects your life each day. You can find complete requirements at: www.scouting.org/stem/requirements.

1. Choose A or B or C and complete ALL the requirements.			
A. Watch an episode or episodes (about three hours total) of shows or documentaries related to agriculture or farming. Then do the following:			
(1) Make a list of at least five questions or ideas from what you watched.			
(2) Discuss two of the questions or ideas with your counselor.			
B. Read (about three hours total) about anything related to agriculture or farming. Then do the following:			
(1) Make a list of at least five questions or ideas from what each article.			
(2) Discuss two of the questions or ideas with your counselor.			
C. Do a combination of reading and watching (about three hours total) about anything that involves any of the topics above, then do the following:			
(1) Make a list of at least two questions or ideas from what you read and watched.			
(2) Discuss two of the questions or ideas with your counselor.			
Date		Completed A, B or C	
2. Complete ONE of these merit badges: Animal science, fishing, mammal study, cooking, forestry, nature, farm mechanics, gardening, plan science, fish & wildlife management, insect study, soil & water conservation.			
It must be one that you have not already used toward a Nova award. Upon completion, discuss with your counselor how the MB you earned uses agriculture.			
Date		MB Earned	
3. Act like a farmer! Think about crops or animals that are found on a farm, choose TWO from A, B, or C:			
A. With your counselor, choose two of the following topics related to food production or processing.			
1. Where did the food you ate for dinner last night come from? Pick one and learn more about them. What are the ingredients? Where were they grown, and how did the item get to your table?			
2. What kind of equipment is used on a farm?			
3. How were the food plants invented? Where do most food plants come from?			
4. How and why are scientists working to develop plants that don't need as much water?			
5. If a big disaster wiped out the food plants, how would we get more of them? How do seed banks work?			
B. Define and learn about two of the following, and discuss with your counselor.			
1. Farming practice categories (conventional, sustainable, till, low-till, and no-till)			
2. Conventional organic, and biotech farming (compare and contrast)			
3. Effects of weather on farming			
4. Converting biomass into energy			
5. STEM careers in agriculture (food science, plant science, farming, agricultural engineering)			
C. Do an "agriscience" experiment and discuss the results with your counselor. Examples or experiments include – but are not limited to – the following:			
1. Grow different types of seeds and compare the seedling plants. Use fast growing seeds such as carrots, Castor beans, lima beans, onion, radishes, soybeans or tomatoes.			
2. Select and study a specific growing variable such as the type of liquid used to water a seed, the type of Light, the growing temperature, or the soil type.			
3. Many germs found in soil are good for agriculture. How can plants grow in soil if no microorganisms are present? With an adult, search the internet and find an experiment that can be done to test the Effect of microorganisms, then perform the experiment.			
Completed Two: A B C		Date:	
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4. Visit a farm, botanical garden, grocery store, or any other location where farm produce can be		
You may also do a virtual tour online with an adult and your counselor's approval.		
A. During your tour, talk with someone in charge about how the plants are grown.		
B. Discuss with your counselor the food science involved at the place you visited.		
5. Discuss with your counselor how farming affects your everyday life.		
Date		Completed Two: A,B,C,D,E,F