

*Your assignment for the 2019 CT Envirothon oral presentation is to propose a farm plan to meet the economic and environmental goals of the farmer. Carefully read the scenario below, along with the farmer's goals and the 6 charges listed. Use reference materials provided on the Current Issue link of the CT Envirothon web site or research your own. Be creative as you brainstorm about the possibilities and discuss how they would meet the objectives.*

Jordan Smith, 32, has been manager of a prosperous small farm in central Nebraska for 5 years by supervising a small herd of beef and dairy cattle, a flock of laying hens and 13 acres of feed crops. Recently, Jordan inherited a 45-acre working farm in Litchfield, Connecticut, and made plans to move from Nebraska to work the Connecticut farm, which has been in the family for 3 generations.

The Connecticut property has a conservation easement that allows the farming of 25 acres of grazing pastures, two 5-acre tilled fields, a 10-acre wooded area and a surface-fed pond. Buildings include an older residence, a fairly new 3,000 square foot barn with stalls and an attached chicken coop. Upon initial inspection, Jordan discovered that the traditional farming practices of the last 20 years have left the farm in debt due to inefficient practices and declining productivity of the fields. Some of these practices included disc harrowing the tilled fields in early spring after an application of manure, an additional late spring application of nitrogen fertilizer, and use of pesticides and herbicides in the fields where row crops of vegetables were grown for sale at the local farmer's market. In addition, the grazing pastures have developed compacted soils causing a decrease in grass production.

The farm has seen a decrease in feed crop production in the tilled fields, including hay and corn, leading to increased cost to purchase feed for the livestock. Currently there are no animals on the farm. The pond has had frequent issues with algae growth, leaving it unavailable for providing water for the livestock and irrigation. Additionally, a neighbor who rents one-half acre near the edge of the wooded area for bee hives, has seen a decline in honey production, and has not been able to pay the rent.

Jordan wants to implement farming practices that make the best use of resources on the property while placing a priority on environmental sustainability. Reducing energy costs for heating the barns and house, for operating the irrigation pumps and for fueling equipment to manage the pastures and fields are also important goals. By making the incoming-producing parts of the farm more efficient, Jordan is committed to increasing productivity in all areas of the farm to make it economically sustainable.

Devise a multi-faceted plan that will help Jordan reach these goals by addressing the following improvements taken from the key topics and learning objectives identified by the 2019 NCF Envirothon.

<https://www.envirothon.org/the-competition/current-competition>

- (1) using conservation practices that improve soil health, water quality and availability, and wildlife habitat;
- (2) raising sources of food that sustainably use the existing land and will bring additional income;
- (3) adding crops that attract pollinators to increase row crop production, and provide rent from the hives;
- (4) managing, through current best management practices, pests, diseases and weeds that affect crop production;
- (5) employing developing technologies to monitor and improve crop production for animal and human food while reducing fuel consumption;
- (6) taking advantage of the benefits of improvement in seed stock, while being aware of risks that may be associated with these improvements

**NOTE:**

Teams must provide a **MLA based list of Works Cited** as the final page of the completed scenario proposal. This is to comply with the standards established by the National Envirothon program.