**Sample Student Outline: Problem-Cause-Solution Organizational Pattern**

Specific Purpose: To persuade my audience that the United States should pass legislation to ban monoculture farming.

Central Idea: Monoculture farming is a serious problem that is harmful to the environment and to our health.

**Introduction**

1. Attention: Since 1974, the average number of items in a grocery store has increased from 9,000 to almost 44,000. Yet today, 75 percent of the world’s food is generated from only 12 plants and 5 animal species, finds the Food and Agriculture Organization. So, while the range of products has widened, the range of crops grown to produce these products has narrowed over the last 45 years. Our food system is dominated by monoculture and government influence.
2. Topic: Monoculture is the agricultural practice of producing or growing a single crop or animal in a field at a time. This practice became popular in the 1960’s with the utilization of farm machinery.
3. Credibility: As I have learned through many hours of research, this practice requires the heavy use of fertilizers and pesticides which have been linked to major health problems.
4. Preview: Today you will see why the United States should pass legislation to ban monoculture farming.

(Transition: Let’s begin by defining the problem.)

**Body**

1. Monoculture farming is a major problem in the United States.
   1. Monoculture farming causes environmental pollution making it harmful to humans.
      1. This practice requires the heavy use of fertilizers.
         1. By not rotating crops, the soil is depleted of necessary nutrients.
         2. According to The Environmental Protection Agency, fertilizer use in the 1960’s was 46lbs per acre and rose to 142lbs per acre in 2014. This is a 209% increase!
      2. This practice also requires the use of heavy pesticides.
         1. The continuous growing of the same crops attracts insects to an abundant food source.
         2. The balance of plant pests and their natural enemies is disrupted in monoculture systems. Populations of natural insect predators and pollinators also tend to be lower in monocultures.
         3. In an article for the International Food Policy Research Institute, Pingali and Rosegrant state that, “As a result of reduced biodiversity, monoculture systems have been found to be more susceptible to insect infestation and plant viruses"
      3. These practices cause problems for the environment through pollution, ground water contamination, and health problems for animals and humans.
         1. According to the Dr. Dennis Weisenburger in his *Human Pathology* journal, short term effects include, sore throat, cough, eye and skin irritation, nausea, vomiting, loss of consciousness, seizures, or death. Long term effects include, Parkinson’s disease, various forms of cancer, sterility, and birth defects.

(Transition: Now that we have addressed the problem, let’s look at the causes behind it.)

1. There are two major causes for the use of monoculture farming.
2. The first cause is the Farm Bill.

1. This bill provided farmers with monetary assistance by setting the market price of crops, providing direct payments for commodity crops, and issuing crop insurance.

2. The government “encourages” farmers to overproduce certain crops through this program.

3. According to the Environmental Literacy Council, “Three crops—wheat, corn, and rice—provide nearly 60 percent of total plant calories that humans consume.”

1. The second cause was the introduction of mechanized farming in the 1960’s.

1. The use of farm machinery made planting fields of single crops easier to plant and harvest.

2. This process is faster, less labor intensive, and more profitable.

(Transition: Now that we know why farmers utilize this practice, let’s look at some alternatives.)

1. The solution to this problem requires addressing both causes to stop the problems they create.
2. We need to persuade the US government to pass legislation to ban the use of monoculture farming and promote alternatives for farmers.

1. The first alternative to this practice is polyculture.

* + - 1. Polyculture is the planting of several crops at a time, the opposite of monoculture.
      2. Mike Lee, the founder of the Future Market shares the example of The Three Sisters crops which are growing corn, beans, and squash together. “The Three Sisters crops have been planted by the Native Americans for over 6,500 years to sustain themselves and their soil.” Growing these crops together is one of the oldest forms of polyculture.

2. The second alternative is crop rotation.

a. According to the Natural Resources Conservation Service, rotating crops reduces the use of fertilizers and pesticides which ultimately decreases total costs. Other benefits include improved nutrient content in the soil, less pollution and reduced erosion and health concerns.

(Transition: These are some of the possible alternatives to monoculture farming if the government were to ban it.)

**Conclusion**

1. Summary: Now you know why monoculture farming is such a problem and how polyculture and crop rotation are viable solutions.
2. Close: In order to understand this problem fully, let’s remember the banana I spoke about in my informative speech. This fruit is strictly a monoculture commodity. It requires the use of heavy pesticides and fertilizers, but it is still vulnerable. Without a change to this farming method, how many other varieties of foods that we enjoy are we going to lose? Monoculture farming puts nature at risk and our global food supply. The future of food should be focused on long-term sustainability and diversity. It must be good for people, the planet, and for profit. Building food brands and business models on a foundation of polyculture, not monoculture, is the key to a better future.

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