

## **Agriculture: Sustaining Future Generations**

**First Place, 7th – 9th Grade**

**By: Hannah Edwards, Dale County**

Agriculture has been mankind's greatest endeavor since the beginning of time. No other element is more necessary to sustaining life than nourishment and raiment. Farming sustains life from the most basic level: food, clothing, shelter, conservation of natural resources, and our economy. The future is dependent on agriculture. Without farmers and various agriculture specialists, the world would lack its primary form of provision, one of its earliest ways of life, and the driving force of the US economy. Agriculture must sustain our future generations.

Feeding the world is an enormous task. A popular poem, "So God Made a Farm," written by the infamous Paul Harvey, relates the life of the agriculture professional, "And who, planting time and harvest season, will finish his forty-hour week by Tuesday noon, then, pain'n from 'tractor back' put in another seventy-two hours? So God made a farmer." These lines illustrate the scope of a farmer's work. Farmers will feed an estimated 9 billion people in the world by the year 2050 by producing diverse nourishment including grains, fruits, vegetables, milk, meat, fish, and poultry. If it sells

on the grocery store shelf, it grew in a farmer's field. Not only would food not be possible without farmers and their dedication, but cotton and other fibers for clothing as well. The clothing and garment industry depend on the farming of the day, not the fashion designers who direct a runway. Without agriculture and farmers, the world would be hungry, naked, and afraid. The source of agricultural products is significant for the growth of our future and the future of generations to come.

"And on the 8th day, God looked down on his planned paradise and said, "I need a caretaker. So God made a farmer." Agriculture also sustains life in the way of conserving the earth's natural resources. Soil, water, and people are crucial to putting food on the table. Conservation plays an important role in improving food production on the farm. Farmers understand this concept and focus on conserving each natural resource for our benefit and safety. Irrigation, dry farming, compost, drought-tolerant crops, and storing water are huge methods in conserving water. Farmers understand the soil of their land and help prevent land erosion by using land based on its capability, protecting the soil, and controlling all runoff. Farmers' primary concern is sustaining the natural resources that make farming and food production possible. These same resources that provide for us today will be the same resources that the

future farmers will use too.

“God said, “I need somebody willing to get up before dawn, milk cows, work all day in the fields, milk cows again, eat supper and then go to town and stay past midnight at a meeting of the school board.’ So God made a farmer.” This country’s farming industry is pivotal to the world’s

economy. Agriculture provides the highest contribution to national income. Agriculture, forestry, and other primary activities have a 24% contribution to national income as well as a 470 billion-a-year impact on Alabama’s economy. Approximately twenty-two million people pursue an agriculture related job.

Agriculture sustains small businesses, banks, stores, and equipment dealers in small towns and rural areas while feeding the world. Farming is valued by America. The United States is the number one agricultural exporter in the world. Agriculture creates a huge impact on the outcome of our future economy. If not American wheat and grain

farmers, then who will provide the lion’s share of grain traded on the free market?

“Somebody who’d bale a family together with the soft strong bonds of sharing, who would laugh and then sigh, and then reply, with smiling eyes, when his son says he wants to spend his life ‘doing what dad does.’

So God made a farmer.” Agriculture holds many answers and resolutions of the future. Farmers will be able to continue feeding future generations through conservation efforts, and through the sharing of a love and faith for sowing a seed and watching it grow. Continued education will not only allow the farming community to grow

healthier crops, but also keep driving the US economy. Farmers are not only the world’s superheroes, but they also will pass down faith, family, and a strong work ethic to future generations.



**First Place, Kindergarten - 3rd Grade**  
Mattie Wix, Cullman County

**Agriculture: Sustaining Future Generations**  
**First Place, 10th – 12th Grade**  
**By: Victoria Hodge, Clarke County**

In the Lord's Prayer, we ask God to "Give us our daily bread," and God answers our prayers through the hard-working hands of our nation's farmers. These farmers are the sources of our fruits, vegetables, corn, cereal, meats, and lumber. They provide food and fiber for the citizens of the United States and for much of the world. Each farmer in the United States produces enough food for 155 people. China is the largest overseas market for United States farm products. They get twenty-four percent of their imports from us, and soybeans account for half the total value of imports. India is the world's top importing country for our vegetable oils. The American farmers are working very hard to do their part in feeding the nine billion people projected to be in the world in 2050.

Since the Great Depression, farmers have begun practicing sustainable farming methods. The fields are no longer farmed until they are completely exhausted of nutrients or until gullies are running through the land. The soils are tested, and the correct amount and form of fertilizer is used for the crops. The no-till method of farming has reduced soil erosion caused by wind and rain. Farmers have begun growing more plants per acre where the soil is sustainable and using genetically engineered seeds, which develop insect resistant traits. This prevents the overuse of insecticides and herbicides, providing a more environmentally friendly atmosphere.

When we think of farmers, we think of huge cattle ranches in Texas, dairy farms in Wisconsin, or enormous corn and wheat fields in the Midwest. However, Alabama has 48,500 farms with twenty-seven percent of the total acres in Alabama being farmland. There are twenty-three

million acres of timberland, which is sixty-eight percent of the total land acres in the state. Agriculture and forestry contribute seventy billion dollars a year to Alabama's economy and provide more than twenty percent of all jobs in the state.

Alabama's forests and timber industry produces over twenty-one billion dollars in revenue per year. Alabama has the third most timberland acreage in the contiguous states, and the forest industry is the state's second largest manufacturing industry. Also, in the practice of sustaining for the future, more timber is being grown than is being harvested. Other methods of sustaining are the practices of select cutting, or clear cutting and replanting with a faster growing variety. Erosion is prevented by not cutting trees in stream management zones and with the use of water bars. Prescribed burning is used to burn underbrush which provides more areas for wildlife. One use of the timber is for wood pellets, which are used for heating. This results in lower consumption of fossil fuels and saves for future generations.

Another important farm industry in Alabama is aquaculture, which is the science of raising water-based animals in a controlled environment. This catfish industry is second only to Mississippi and produces fish on 22,000 water acres. The fish are sold to all fifty states, Canada, Europe, and Asia. Environmental conditions such as a long warm season, water-retentive soil, plentiful rainfall, and river water to maintain ponds help the industry succeed. Economic factors which include low energy costs, good transportation systems, and scientists helped with the success of this industry. Fish are a cheap source of protein, which is used to feed the world's population. Aquaculture can be developed in most parts of the world to sustain the population.

The federal government has implemented many laws and regulations to help the farming industry sustain the environment. Among these are limiting the use of certain pesticides, herbicides, and medicines. There are also regulations on the use of water for crops, use of the waterways, and controlled burning of timberland. Each of these laws made the farmer feel that he was the target, but it was always for a more sustainable future for the country.

Two of the government programs have been very successful. The USDA School Breakfast Program provides nutritious morning meals to students at almost 90,000 schools. This program was authorized to target low-income students. About eighty-five percent of public school students are served free or reduced price meals. The USDA National School Lunch Program provides healthy school lunches to more than thirty million school children each day. This program has updated its nutrition standards to include more fruits, whole grains, and a healthier mix of vegetables. These programs, along with other similar ones, are helping to produce a nation of healthy children who will become strong, productive adults.

To enable agriculture to sustain future generations, other changes and improvements must be made. One critical problem that faces future farmers is a shortage of water for irrigation. A system to remove salt from sea water

using solar power has been developed. With this system each one acre of solar desalination can provide irrigation water for forty acres of irrigated farmland. This system could be used to grow crops in desert areas, and the salt could be used as preservative in food.

Other improvements in farming techniques include a process in which seeds are treated with insecticides and fungicides that will target pests, using low-dose ingredients. This will replace pest control applications that are broadcast and will be safer for the environment. Planting relay crops is another sustainable farming method. This means that two crops are planted on the same land per year, with one being planted before the other is harvested. Phosphates for fertilizer can be obtained by mining sewage. This will provide a fertilizer that is 5-20-0 in strength.

Farming is a way of life, and the American farmer will sustain future generations. More farmers are content with

their occupations than in any other profession, and most farms have been owned by several generations. This love of the land may be an inherited characteristic. It was best expressed by George Washington who said, "I had rather be on my farm than be emperor of the world."



First Place, 4th - 6th Grade  
Dwayne Riley, Dale County