

Steven Vekony
Byng High School
Ada, Oklahoma
Zimbabwe, Factor 1

Corn: The Basis of FFA, the World, and the Answer to Our Prayers

Zimbabwe is a landlocked country in the southern part of the African continent, between the Zambezi and Limpopo rivers. It is bordered by South Africa to the south, Botswana to the southwest, Zambia to the northwest and Mozambique to the east. Large parts of Zimbabwe were once covered by forests, the African brush, with an abundant wildlife. Victoria Falls, one of the world's biggest and most spectacular waterfalls, is located in the country's northwest as part of the Zambezi River. Zimbabwe's statistical indicators for health and education were once among the best in Africa. But the political and economic crisis has brought rising poverty and social decline in its wake. Deforestation and woodland degradation are a major concept and have led to erosion and land degradation which diminish the amount of fertile soil. Pronto-Shona speaking societies first emerged in the middle Limpopo valley in the 9th century before moving on to the Zimbabwean highlands. The Zimbabwean plateau eventually became the center of subsequent Shona states, beginning in the 10th century. In the 1880s, the British arrived and began to take over the Zimbabwean area. President Robert Mugabe's Zimbabwe African National Union- Patriotic Front has been the dominant political party in Zimbabwe since independence. Zimbabwe's current economic and food crisis, described by some observers as the country's worst humanitarian crisis since independence, has attributed in varying degrees to the government's price controls and land confiscations, the HIV/AIDS epidemic, and a drought affecting the entire region. National infrastructure has deteriorated. About 40 per cent of the road network is in poor condition, water and sanitation coverage is very poor, and railway freight traffic has declined by more than half since 1990, effectively isolating rural communities from markets.

There are over 12 million people in Zimbabwe, and 5 million of those can't grow or purchase food or other essentials. The maternal mortality rate per 1,000 births in Zimbabwe is 93 and 1 in 42 live births result in death for pregnant women. In the United States there are only 6 deaths per 1,000 births. Life expectancy for men was 37 years and the life expectancy for women was 34 years old, the lowest in the world in 2006. Basic services and the healthcare system have collapsed – the country is now expecting a growing cholera problem with 7,000 cases having been reported nationally. As a result of poverty in Zimbabwe many Zimbabweans have fled to settle in neighboring countries such as South Africa, Botswana, Mozambique and Malawi amongst other countries. With the rise in unemployment and consequent male migration away from rural areas, households headed by women are increasingly common. These households are nearly always the most disadvantaged. Other vulnerable groups in rural areas are families with small plots of land, or without irrigation in dry areas, or without access to animals for draught power.

Traditionally Zimbabwe's agriculture sector was dualistic; on the one hand there was the commercial sub-sector comprised of large-scale farms producing cash crops such as tobacco and grain, on the other the small-scale producers who grew food crops, especially maize. This food fed the country and there was even surplus for export to other countries in the region. The government's land reforms dismantled the existing system of land distribution and severely damaged the commercial farming sector, which was an important source of exports and foreign exchange, and which provided employment for about 400,000 people in rural areas. The old system was geared to large-scale production and the transition to smallholder production has been slow and painful. The economic crisis of the past decades has prevented substantial capital investment, and new enterprises have been slow to emerge. Agricultural production in general has suffered as a result of weak support services, lack of credit, and acute shortages of essential inputs such as seeds, fertilizer and fuel. In drier areas water scarcity is a major challenge for farmers. Drought has exacerbated an already difficult situation and has made it harder for farmers in dry areas to

raise their productivity. Food insecurity continues to worsen both for urban and rural populations. Zimbabwe has become a net importer of food products and many millions of people are now dependent on food aid.

Some ways that we can help improve the world hunger problem would be with genetically modified crops that are more adaptable to other areas of the world like Zimbabwe. Corn is an essential part of our life not only directly, but indirectly as well. Corn is one of the few crops that can boast that it is grown and cultivated in all fifty states. Corn has been developed over the years and extensive research is a continuation for this crop. There are many benefits to producing and distributing genetically modified corn.

Pest resistance Crop losses from insect pests can be staggering, resulting in devastating financial loss for farmers and starvation in developing countries. Farmers typically use many tons of chemical pesticides annually. Consumers do not wish to eat food that has been treated with pesticides because of potential health hazards, and run-off of agricultural wastes from excessive use of pesticides and fertilizers can poison the water supply and cause harm to the environment. Growing GM foods such as B.t. corn can help eliminate the application of chemical pesticides and reduce the cost of bringing a crop to market.

Herbicide tolerance For some crops, it is not cost-effective to remove weeds by physical means such as tilling, so farmers will often spray large quantities of different herbicides (weed-killer) to destroy weeds, a time-consuming and expensive process that requires care so that the herbicide doesn't harm the crop plant or the environment. Crop plants genetically-engineered to be resistant to one very powerful herbicide could help prevent environmental damage by reducing the amount of herbicides needed. For example, Monsanto has created a strain of soybeans genetically modified to be not affected by their herbicide product Roundup. A farmer grows these soybeans which then only require one application of weed-killer instead of multiple applications, reducing production cost and limiting the dangers of agricultural waste run-off.

Disease resistance There are many viruses, fungi and bacteria that cause plant diseases. Plant biologists are working to create plants with genetically-engineered resistance to these diseases. With disease resistant crops Zimbabwe would have a healthier food source. You would also be able to grow and harvest crops more effectively.

Cold tolerance Unexpected frost can destroy sensitive seedlings. An antifreeze gene from cold water fish has been introduced into plants such as tobacco and potato. With this antifreeze gene, these plants are able to tolerate cold temperatures that normally would kill unmodified seedlings. Although Zimbabwe rarely experiences colder temperatures, America would benefit from this factor; thus, being able to export more crops to Zimbabwe.

Drought tolerance/salinity tolerance As the world population grows and more land is utilized for housing instead of food production, farmers will need to grow crops in locations previously unsuited for plant cultivation. Creating plants that can withstand long periods of drought or high salt content in soil and groundwater will help people to grow crops in formerly inhospitable places. These crops would be better suited to grow in Zimbabwe's desert-like environment.

The National FFA Organization (also known as Future Farmers of America) envisions a future in which all agricultural education students will discover their passion in life and build on that insight to chart the course for their educations, career and personal future. FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. Agricultural Education prepares students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems.

The foundation of the FFA symbol is the cross section of a ear of corn. It is the backbone of our organizations symbol and is one of our greatest crops produced. The importance of this crop runs deep in our nation's history. It is also a symbol of unity within the FFA organization.

Throughout my years, the FFA has truly taught me the value of life. When you put on an FFA jacket you are not only representing yourself, you are representing the largest youth organization in the world. Today, there are 523,309 FFA members, in 7,487 chapters in all 50 states, Puerto Rico and the Virgin Islands. More than 11,000 FFA advisors and agriculture teachers deliver an integrated model of agricultural education providing students with innovative and leading-edge education, enabling them to grow into competent leaders. FFA classroom activities include math and science as well as hands-on work experience and the development of life skills helping them to discover their career path and realize success.

The United States is, by far, the largest producer of corn in the world. Corn is grown on over 400,000 U.S. farms. In 2000, the U.S. produced almost ten billion bushels of the world's total 23 billion bushel crop. There are on average 10 bushels of corn per acre produced in Zimbabwe.

The United States trades grain and crops around the world yet much of the world is still in famine. If we were to reduce our trade costs and increase the production rate; the supply would increase, the demand would decrease, and the cost will then reduce greatly making our exports more cost effective for lower economic countries. I also feel that with the further development of GMO corn and other crops will be beneficial so that other countries will be able to be more self sufficient and not have to rely on costly imports. In order to get back on track of not only hunger issues but poverty overall, it is crucial for Zimbabwe to increase crop yields and improve disease and drought resistant crops such as genetically modified corn. This would decrease the mortality rate, the cholera disease rate, increase employment, and strengthen the country as a whole. Major agricultural programs, such as the National FFA Organization, would also be a vital resource in lowering poverty rates overall.

Among the Millennium Development Goals which the United Nations has set for the 21st century, halving the proportion of hungry people in the world is top of the list. Whereas good progress was made in reducing chronic hunger in the 1980s and the first half of the 1990s, hunger has been slowly but steadily rising for the past decade. The many causes of hunger and malnutrition seem simple; yet ending hunger remains difficult to achieve.

There are those who despise the poor people around them, those who live in permanent sadness for them, those who try to shut it out, those who are motivated to act to improve the situation, and those who are resigned to the fact that life isn't fair and there are people who have and people that haven't. In reality,

most of us have all of these feelings at different times. We often hear about people's desire to solve world hunger, or to be able to feed the world and help alleviate the suffering associated with it. For most of us, hunger is short-term with a simple and foreseeable solution: easy access to a wide array of food and nutrition rich choices. However, for one-sixth of all of the people in the world, hunger is a daily inescapable reality. The world has the resources to address all the problems of hunger with the various forms of technology and global wealth that exists. The question is, do we have the will and commitment to do so?

Following elections in 2005, the government initiated "Operation Murambatsvina", an effort to crack down on illegal markets and homes that had seen slums emerge in towns and cities. This action has been widely condemned by opposition and international figures, who charge that it has left a substantial section of urban poor homeless. The Zimbabwe government has described the operation as an attempt to provide decent housing to the population although they have yet to deliver any new housing for the forcibly removed people.

Since the formation of the Unity Government in 2009, the Zimbabwean economy has been on the rebound. GDP grew by more than 5% in the year 2009 and 2010. Growth is forecast to reach 8% in 2010, buoyed by high mineral prices and the improving agriculture sector. Zimbabwe produced 119 million kg of tobacco in the 2009/10 season, double the previous year's output. Zimplats, the nation's largest platinum company, has proceeded with US\$500 million in expansions, and is also continuing a separate US\$2 billion project, despite threats by Mugabe to nationalize the company. The pan-African investment bank IMARA released a favorable report in February 2011 on investment prospects in Zimbabwe, citing an improved revenue base and higher tax receipts.

In November 2010, the IMF described the Zimbabwean economy as "completing its second year of buoyant economic growth after a decade of economic decline", mentioning "strengthening policies" and "favorable shocks" as main reasons for the economic growth.

In my opinion, there is not only one answer to end poverty and world hunger. Issues this dramatic cannot be solved overnight, but I truly believe that by promoting genetically modified crops, compromising a more effective trade system, and recruiting members from youth organizations like the FFA poverty in the world can become easier solved. If we work together, we can fashion a world that works for all.

Works Cited

- "Advantages of Genetically Modified Foods." *Want to Know It / Answers to Life's Questions / Everything Blog*. Web. 23 Sept. 2011. <<http://wanttoknowit.com/advantages-of-genetically-modified-foods/>>.
- "A Genetically Modified Crop Benefits a Non-modified Crop by Killing Pests, University of Minnesota Study Finds." *Umn.edu*. 07 Oct. 2010. Web. 23 Sept. 2011. <http://www1.umn.edu/news/news-releases/2010/UR_CONTENT_256624.html>.
- Official FFA Manual*. Alexandria, VA: National FFA Supply Service, 2011. Print.
- "Poverty Facts." *World Hunger Notes Homepage*. Web. 23 Sept. 2011. <<http://www.worldhunger.org/>>.
- "Zimbabwe, Africa." *Nue.okstate.edu*. Cody Daft & Daniel E. Edmonds, OSU, Jan. 2008. Web. 23 Sept. 2011. <<http://nue.okstate.edu/SSA/Zimbabwe.htm>>.
- "Zimbabwe." *U.S. Department of State*. Web. 23 Sept. 2011. <<http://www.state.gov/r/pa/ei/bgn/5479.htm>>.