

Today's Presentation

Program: In Our Fight against Hunger, Why is Science Being Pushed to the Sidelines

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Attendance: 102

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There is a train coming down the tracks, and, we are waiting for it to slam into us. By 2050, the world's population will increase from today's 7.5 billion to 9.6 billion; and the world will need 70% more crops. And, there will be less land available to produce more crops as cities expand into farmland, and climate change also reduces the amount of available acreage.

Dow AgroSciences and its competitors utilize science to serve the needs of a growing world. During the past 70 years, corn production increased dramatically with the introduction of hybrid corn. The European Corn Borer, which was resistant to insecticides, was controlled with genetic engineering. Today, ninety percent of the corn grown is genetically engineered.

Genetically Modified Organisms (GMO) are often not responsible for changes in crops. Seedless watermelon is not a GMO product. Ruby red grapefruit is modified by radiation. Sweet corn is produced through mutagenesis which blocks the conversion of sugar to starch. On the other hand, insulin is produced through a GMO.

On the average, GMO research, review, and regulation on a new variation takes 13 years and \$130 million before coming to market. Vast amounts of resources have been spent on corn and soybeans used to produce meat. However to respond to world hunger, resources need to be spent on rice and wheat for cereal production, the main food source for Africa and Asia. Estimated cereal demand by 2050 for Africa is 335% of what was produced in 2010.

Despite the need, Dow AgroSciences and its competitors are not spending resources in the needed crop production. Public perception, and, the emphasis on "non GMO" foods; and shareholders' response to public pressure prevent the R&D needed. Crop production is limited to using old tools which are not as efficient as the new tools available.

Public understanding of science and technology (STEM) can help stop the train before it slams into us. The needed rice and wheat can be grown in Africa and Asia. Science needs to be taken off of the shelf and used to replace the old tools.



Vahid Aidun,