

Corn and Grain Sorghum Promotion Board 2015 Report

Title: Development of an On-Line Course – Introduction to Biotechnology Crops.

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Collaborators: Burt Bluhm and Ken Korth

Status: Year 2 of 2

Goal: Launch and monitor the online course developed to teach the facts about biotechnology using corn & grain sorghum as a model crop. Repurpose the resources developed to create materials that engage Arkansas high school science students, teachers and educational partners in biotechnology education leading to support of corn & grain sorghum production and agricultural sustainability.

Objectives:

1. Implement the course to a pilot test audience, collect feedback, and then offer the course to the general public.
 2. Increase knowledge of the science of biotechnology and transgenic crops among the general public, Arkansas teachers and high school students.
 3. Increase awareness and knowledge of the value of corn & grain sorghum to the Arkansas economy among the general public, Arkansas teachers and high school students.
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Objective 1

Methods: The course was pilot tested by 16 individuals including members of the general public, University of Arkansas Division of Agriculture personnel, and Arkansas Corn and Grain Sorghum Board members.

Results and Discussion: Pilot testers identified needed changes and made suggestions to improve the course. These changes and suggestions were addressed and the course was successfully launched. The three module titles in the course are: 1) History of Food Production and Biotechnology; 2) Defining Biotechnology and its Principles; and 3) Benefits and Risks of Biotechnology. The course and lessons are viewable on numerous devices including PC, Mac, iPad, iPhone, Android mobile devices, and tablets.

Objective 2

Methods: The course was launched on the University of Arkansas System Division of Agriculture course management system courses.uaex.edu. The course is available for free to any person who creates an account in the system.

Results and Discussion: To date the course has 64 learners enrolled with no marketing efforts. We are currently working with our communications department to develop a marketing plan that includes promoting the course to specific audiences including: school science programs and teachers, farm and industry publications, food publications, and

Arkansas media. A variety of media including promotion at major UofA Division of Agriculture events, news releases, social media, handout postcards, and print publications will be utilized to market the course to audiences.

Objective 3:

Methods: Re-purposing of online materials to support the Arkansas student education core proficiency standards for Arkansas high-school science teachers to utilize in the classroom, and also to create an online professional development course in which Arkansas high school science teachers can earn continuing education units (CEU).

Results and Discussion: Interactive lessons and course outline have been re-purposed into classroom materials for high school science teachers. Educational products and curriculum based on the online course content have been developed. Appropriate modifications of the existing educational content for high-school audiences have been made. Materials are aligned with state educational framework and national Next Generation Science Standards. Pre and post tests have been developed for teachers to evaluate and assess learning.
