

Maryland Grain Producers Utilization Board

Carroll County Extension Advisory Council

Becky Ridgeway bridgewa@umd.edu
4-H Faculty Extension Assistant

Theresa Serio tserio@umd.edu
FCS/FSNE Associate Agent

700 Agriculture Center Drive
Westminster, MD 21157
410-386-2760 (w) 410-876-0132 (fax)

MGPUB Grant Proposal Number: 2015314

Final Report

Overview of Activities/Project:

“AgVenture” was held over a four day period with six fourth grade classes from Carroll County Public Schools, which were exposed to local grain production and uses related to Maryland agriculture. Stations were set up and taught by University of Maryland Extension agents, coordinators and educators. Five stations were utilized to teach youth about different uses and impacts grains have on our everyday life. Students rotated through these stations every 30 minutes, in which they all offered hands-on learning opportunities.

Stations consisted of:

Soil Isn't Just Dirt

Whole Grain Nutrition and Grain Products

Land Use and Watersheds

Milk in Motion (Dairy and Beef)

Poultry

Each station focused on a different aspect of grain production and how it affects our everyday lives. Students went through the different aspects from identifying the common grains grown in Maryland and specifically Carroll County to production and harvesting to the uses of grains in animal feeds and human consumption.

At the Soil Isn't Just Dirt station students had an up close opportunity to view equipment used in every day production. Students had the opportunity to learn about the different equipment used in grain production from tractors, planters, fertilizers and combines. Participants learned about root systems and why their important in grain production and soil profiles. Students learned about the variety of products that are made from the different grain crops grown in Maryland. While having the chance to experience the differences in harvesting crops a hundred years ago to the technology used today. Students also had a food tasting and planted seeds to take home to start their own "farm projects".

Students also had the opportunity to identify different seeds (example – wheat, oats, corn, barley) in making grain jars with the help of Carroll County Farm Bureau members. They learned about germination and specific uses of grain crops. At this time students also learned about how grains affect our everyday lives, as they examined foods they may eat on a regular basis. Students learned how whole grains are a good source of fiber and how they affect their digestive systems. They also had the opportunity to make a whole grain snack consisting of whole grain goldfish, whole grain cheerios, pretzels, sunflower seeds and chocolate chips.

From learning about how grains affect our eating habits students had the opportunity to learn that grains play an important role in the livestock industry through the dairy and beef station. At this station students identified grains and the different forms that grains can be found in livestock feeds. Students learned about quality of grains and the effects they can play on the beef and dairy industries. Students had an opportunity for a hands-on experience of learning about milk production and the different qualities/kinds of milk.

The students also had the opportunity to learn about the grains industry and how it influences one of the largest agriculture industries in Maryland, through the poultry station. Students learned about grains used to feed broilers and laying hens in production. Students had the opportunity to experience live birds and the requirements of having a backyard flock through the University of Maryland Extension's Loan a Layer Project.

At the last station students learned how growing grains aids as a water filter in cleaning up local streams and rivers along with the Chesapeake Bay. A hands-on experiment was provided to demonstrate the effects that fertilizers and pollution can play on the Chesapeake Bay watersheds. Through the demonstration students experienced the effects that can happen when crops aren't planted and there are no best management practices in place, and then compared those effects through adding in best management practices that producers are using. Students were able to compare the differences and see the benefits that planting crops and using best management practices have on the bay.

At the conclusion of the day students participated in a post-test evaluation of the program. Teachers and chaperones also partook in an evaluation of the program. Through the program we were able to partner with the Carroll County Farm Bureau in providing the 2015 Ag-Literacy Book "Amazing Maryland Agriculture" to each classroom that came to the program. Students also left the program with materials on Maryland agriculture and production and information on the Carroll County 4-H Program.

Detailed Description of Objectives being met:

The goal of the “AgVenture” program is to enhance the knowledge of Maryland agriculture to fourth grade students in Carroll County. The goal is to increase knowledge about grain production, nutrition for humans and animals and the benefits of grains to watersheds. In order to meet the objectives of the program we provided teachers with a pre-test to administer to their students before arriving at the Carroll County Agriculture Center. Of the five questions asked in the pre-test, each question related to the stations that the students would be participating in.

The five questions were:

1. Watersheds – What is a watershed?
2. Whole Grains – What are whole grains and why are they healthy for us?
3. Soil Isn’t Just Dirt – What are some crops that are grown in Carroll County?
4. Poultry – In what part of Maryland are the most chickens raised?
5. Moo Who? – What are some grains that cows eat so they can produce milk?

When students left the Ag-Ventures program they were able to identify that grain production is important to Maryland agriculture for the benefits it has on the environment throughout the Chesapeake Bay watershed. Students were able to identify a variety of grain crops produce in Maryland specifically to Carroll County through the grain production and grain identification stations. Students also learned that grains play an important role in animal nutrition and production along with our daily nutritional intake.

We also had the teachers and chaperones evaluate the program of highlights and areas of improvements. Of comments received back many teachers felt that the program fell in line with state curriculum standards, educators were resourceful with props which aided in student understanding and excellent participatory hands-on lessons for students. The use of live animals and hands-on activities enhanced the program. Other comments from teacher evaluations included that Ag-Ventures was the most educational field trip they have done, reinforcement of school curriculum was most effective with hands-on learning.

Expenditures:

General Liability Insurance (4 Day Coverage) -	\$ 175.00
Bus Transportation (4 Days) -	\$ 1,978.28
Supplies for Stations -	\$ 2,283.88
Lunches (4 Days) -	\$ 392.43
Total -	<u>\$ 4,829.59</u>

The remaining funds for the Ag-Venture Program were provided by the Carroll County Extension Advisory Council. Supplies were donated by the following businesses/individuals:

Carroll County Agriculture Center
Carroll County Farm Bureau

Coldsprings Farm
Finch Services Inc.
Lippy Brothers, Inc.
Rasche Brother's Farm
Tractor Supply Company – Westminster

List Occasions where MGPUB Received Recognition:

At the conclusion of the program each day we recognized the organizations that helped provide for this program and the MGPUB board was recognized each day of the program to the teachers, chaperones and students. We also utilized other resources that the MGPUB is a part of with the use of The All-Grain Farm Team activity booklets. Each student that participated in the program went home with this activity book.

07/14/15

**Carroll County Extension Advisory Council
AgVenture Program
March 1 through June 29, 2015**

Type	Date	Num	Name	Memo	Amount	Balance
100 4-H Youth Development						
100-22 Human Sciences						
22-21 At Risk Youth-MGPUB						
Check	03/11/2015	25864	National 4-H Coun...	15-223 1 I Love 4-H Stic...	-10.95	-10.95
Check	03/11/2015	25864	National 4-H Coun...	15-223 4-H Emblem Stic...	-10.95	-21.90
Deposit	04/02/2015	9487	Maryland Grain Pr...	15-209 2015 1st Stipend	1,000.00	978.10
Check	04/21/2015	25904	PNC Bank	15-264 ESP FarmTek - ...	-323.51	654.59
Check	04/21/2015	25904	PNC Bank	15-264 Johnny's Seed - ...	-297.70	356.89
Check	05/21/2015	25931	PNC Bank	15-290 Johnny's Seeds ...	-203.00	153.89
Check	05/21/2015	25931	PNC Bank	15-290 4Imprint - Stress...	-703.55	-549.66
Check	05/21/2015	25931	PNC Bank	15-290 Bowman's - Grai...	-25.85	-575.51
Check	05/21/2015	25931	PNC Bank	15-290 RF Warner Sons...	-21.25	-596.76
Check	05/21/2015	25931	PNC Bank	15-290 Subway - 5/11 L...	-120.84	-717.60
Check	05/21/2015	25931	PNC Bank	15-290 WalMart - Suppli...	-272.84	-990.44
Check	05/21/2015	25931	PNC Bank	15-290 Food Lion - Sup...	-14.11	-1,004.55
Check	05/28/2015	25932	Schaffer Mulch & ...	15-293 2 buses for Ebb ...	-410.00	-1,414.55
Check	05/28/2015	25933	Markel Insurance ...	15-294 Comm'l Gen'l Lia...	-175.00	-1,589.55
Check	06/09/2015	25956	Johnson Bus Servi...	15-308 2 buses for Free...	-273.14	-1,862.69
Check	06/18/2015	25969	Cranberry Station ...	15-309 2 buses to AgVe...	-285.14	-2,147.83
Check	06/18/2015	25971	PNC Bank	15-326 Wegmans - AgV...	-2.28	-2,150.11
Check	06/18/2015	25971	PNC Bank	15-326 Weis - AgVentur...	-10.72	-2,160.83
Check	06/18/2015	25971	PNC Bank	15-326 Wegmans - AgV...	-5.99	-2,166.82
Check	06/18/2015	25971	PNC Bank	15-326 BJs - AgVenture ...	-30.86	-2,197.68
Check	06/18/2015	25971	PNC Bank	15-326 Walmart - AgVe...	-96.16	-2,293.84
Check	06/18/2015	25971	PNC Bank	15-326 Giant - AgVentur...	-4.22	-2,298.06
Check	06/18/2015	25971	PNC Bank	15-326 Chick-fil-a - AgV...	-100.00	-2,398.06
Check	06/18/2015	25971	PNC Bank	15-326 Panera - AgVent...	-97.50	-2,495.56
Check	06/18/2015	25971	PNC Bank	15-326 Papa Johns - Ag...	-74.09	-2,569.65
Check	06/18/2015	25971	PNC Bank	15-326 Walmart - AgVe...	-43.10	-2,612.75
Check	06/18/2015	25971	PNC Bank	15-326 Walmart - AgVe...	-142.24	-2,754.99
Check	06/18/2015	25971	PNC Bank	15-326 Walmart - AgVe...	-54.99	-2,809.98
Check	06/18/2015	25971	PNC Bank	15-326 BJs - AgVenture ...	-30.86	-2,840.84
Total 22-21 At Risk Youth-MGPUB					-2,840.84	-2,840.84
Total 100-22 Human Sciences					-2,840.84	-2,840.84
Total 100 4-H Youth Development					-2,840.84	-2,840.84
TOTAL					-2,840.84	-2,840.84
<i>7/14/15 26060 Bower Bus Soc 16-014 4 buses - Mt. Arey</i>					<i>1,000.00</i>	
					<i>3840.84</i>	