

SWOT Analysis for Frederick County Ag Education Programs

Background

The agriculture community felt an analysis of the Agriculture Education programs in Frederick County was needed after seeing how the transition of Linganore High School into the new Oakdale High School building occurred. Many in the community felt that the Agriculture Education programs were not getting the necessary attention and priority needed to keep the programs viable not only in the Linganore High School, but also throughout the county. Members of the County Farm Bureau and Grange felt an outside assessment of the county's Agriculture programs was long overdue. With that, the Agricultural Education Program Advisory Committee (PAC) was formed with Colby Ferguson serving as chairperson. Colby currently serves on the Career & Technology Advisory Council of Frederick County. The committee members are designated members of the Frederick County Farm Bureau, the Pomona Grange, Maryland Agriculture Education Foundation, State House of Representatives and selected parents of high school students that attend a Frederick County High School and are currently active in Agriculture Education Programs.

The purpose of the Ag Education PAC is to:

- Assess the economic impact/demand for the Ag programs
- Review existing curriculum
- Identify issues or barriers to program success
- Enhance and expand the programs
- Advocate for the programs

The PAC met for the first time on June 12, 2008 and then met once a month through September. At the first meeting, the committee felt that a summary of the findings was needed to capture the many issues, both good and bad, that were discussed during the meeting. The PAC decided to conduct Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis for the Agriculture Education programs in Frederick County. The following information is a breakdown of that analysis.

Strengths

- Frederick County has the largest agriculture education programs in the state

Ag. Education Enrollment			
Year	Frederick County	Maryland	% State Enrollment
2006	2,400	6,906	34%
2007	1,724	5,571	30%

FFA Membership			
Year	Frederick County	Maryland	% State Enrollment
2005-06	433	1,354	32%
2006-07	442	1,336	33%

As you can see, Frederick County's Ag Education and FFA program enroll 1/3 of all the students in Ag Education in Maryland. However, if classes are deleted from the curriculum or replaced by classes such as Foundations of Technology, there will be a decline in the county's enrollment. As more and more classes are made mandatory, the scheduling conflicts start to prevent students from being able to participate in Ag Education classes.

- State winning programs in Agriculture

FCPS Winners Maryland Career Development Events – Team			
Year	# of 1st Place teams	# of 2nd Place teams	# of 3rd Place teams
2007	8	11	9
2008	9	5	6

27 Team Events

FCPS Winners Maryland Career Development Events - Individual			
Year	# of 1st place Individuals	# of 2nd place Individuals	# of 3rd place Individuals
2007	2	2	6
2008	3	4	3

8 Individual Events

American FFA Degrees			
Year	Frederick County Students	Total Students in Maryland	% of Maryland's Degrees by F.C. Students
2007	5	10	50%
2008	3	7	43%

Maryland FFA Degrees			
Year	Frederick County Students	Total Students in Maryland	% of Maryland's Degrees by F.C. Students
2007	26	56	46%
2008	13	63	21%

Frederick County's Ag Education programs have consistently performed exceptionally well at the state Career Development Events for years now. Some of the best and brightest students in the field of agriculture are coming out of Frederick County's High School programs.

- Highly qualified teachers

Frederick County's Ag Education teachers not only have many years of experience, but also strive to be the best. The data below shows the standard of excellence and years of dedicated service Frederick County Ag Education teacher possess.

2007 MATA (Maryland Agriculture Teacher Association) Awards

Award	Program/Teacher Name
NAAE Outstanding Ag Education Program	Catoctin High School/ Bob Beaven & Diane Ogg
NAAE Outstanding Ag Education Teacher	Pat Beachy - Linganore High School
MATA Professional Excellence Awards	Mike Harrington - Ag Mechanics & Environmental Science Teresa Stevens - Plant Systems & FFA Diane Ogg - FFA
Advocacy in Action Award	Robert Beaven Carroll Shry
Years of Service Award	Carroll Shry - 40 years Keith Staley - 35 years Tom Hawthorne - 25 years Doug Hering - 25 years Teresa Stevens - 20 years

2008 MATA (Maryland Agriculture Teacher Association) Awards

Award	Program/Teacher Name
NAAE Outstanding Ag Education Program	Frederick Career & Tech. Center/ Carroll Shry & Doug Herring
MATA Professional Excellence Awards	Keith Staley - Plant Systems Sara Welty - Animal Systems Robert Beaven - SAE
Teacher or Teachers Award	Pat Beachy Tom Hawthorne
Advocacy in Action Award	Robert Beaven
Years of Service Award	Jim Ferrant - 30 years Tim Bowman - 30 years Mike Harrington - 15 years

- Creation of Leaders

The Ag Education programs in Frederick County have strived to teach the leadership skills needed to create not only productive citizens, but also future leaders in society today. The Ag Education and FFA program curriculum teaches the necessary leadership and 21st century skills to be effective in the business community.

To further show the excellence of the leadership training in Frederick County's programs the following table lists the State FFA officers that are/were from Frederick County FFA chapters.

Maryland State FFA Officers

2008-09	Name	Chapter	Office
	Carrie Wivell	Catoctin	President
	Richard Stonebraker	Linganore	Vice President
	Heather Eagle	Brunswick	Secretary
	Brittany Bowman	Walkersville	Treasurer

2007-08	Name	Chapter	Office
	Kelsey Dertzbaugh	Walkersville	Treasurer
	Bridget Hoffman	Catoctin	Sentinel
	Monica Ripley	Linganore	Reporter

2006-07	Name	Chapter	Office
	Andrea Kneer	Walkersville	President
	Annie DeLauter	Catoctin	Treasurer
	Sara Kreh	Middletown	Reporter

2005-06	Name	Chapter	Office
	Katie Albaugh	Walkersville	Vice President
	Brittany Ramsburg	Walkersville	Treasurer
	Kimmie Main	Walkersville	Reporter

2004-05	Name	Chapter	Office
	Aaron Mathews	Walkersville	President
	Julie Roop	Catoctin	Secretary
	Jeana Prather	Linganore	Treasurer
	Luke Cafardi	Urbana	Sentinel
	Justin Tusing	Urbana	Parliamentarian

- Leadership training – both Alumni and through curriculum

Out of the current 15 Ag Education teachers in Frederick County, 9 are FCPS alumni. As said above, the curriculum in the Ag Education programs focuses on the development of future leaders with both the necessary knowledge and skills needed to be effective leaders in our society today.

There is a leadership class currently on the books that focuses on these leadership and 21 century skills. The PAC feels this class should be more effectively utilized to increase the number of high school students exposed to leadership and life skills needed to be productive business people.

Weaknesses

- Dated curriculum

The PAC accessed the current curriculum and felt that some of the lesson plans were somewhat outdated and in need of revising. Since this committee has been meeting, we have learned that FCPS has purchased the CAERT program. The new CAERT materials have extensive lesson plans that are different from the standards and indicators found in the current essential curriculum guides. The PAC believes this program will allow the Ag Education teachers to update their lesson plans to incorporate additional 21st century programs and skills, thus improving the somewhat outdated curriculum.

- Lack of Ag Business and Biotechnology classes available

The current Ag Education programs do a good job at incorporating business skills into the lesson plans and with the incorporation of the new CAERT program those skills will increase even more. However, as Frederick County continues to grow and diversify, the number of students with the interest in pursuing the traditional Ag Education programs could start to decline. One good thing about agriculture is that a person doesn't have to be in traditional agriculture to have an agriculture occupation. The foundation of Biotechnology is agriculture. As Frederick County continues to grow in the biotechnology field, the job opportunities in Biotechnology will grow. This creates an opportunity for the Ag Education program to further diversify and add Ag business and Biotechnology as possible completer programs in FCPS. We have some county schools that have small enrollment or no Ag education program. In addition, these same schools tend to generate students with science related interests. These schools would be prime places to incorporate these new programs. The PAC's feeling is that if new programs were created such as Ag Business and Biotechnology that not all the programs would need to be available at every high school in Frederick County. The schools should assess the student population, review programs and see where they are successful and then determine which programs fit that school's student population.

- Program is run on class size (minimum 15 students per class) but needs to be on a planned schedule

Some of the Ag Education programs require extensive hands on training, for example: Ag Mechanics. This training requires quite a bit of one-on-one training. Under the current requirements, minimum class size is the limiting factor on whether a class is offered or not. In specific situations such as an Ag Mechanics completer program the program should run on a

planned schedule of offerings instead. This will insure all courses in the sequence are offered and the students are allowed to complete the program.

- Many classes have too many students in them (Linganore)

Conversely to the above issue, some classes are too crowded. Especially now that Linganore has been relocated to the new Oakdale high school, there are several classes that we consider to have too many students in them. Several of these classes have been overcrowded for several years now. As we start to promote and advocate for more student participation in Agriculture Education, there will be an increased need for additional teachers.

- Some programs are weak in some schools – no program at TJ

Even though Frederick County dominates the state in student enrollment, there are some schools within the county that have weak or no Ag Education programs. The council feels there are opportunities at these schools to diversify the program and capture many of those students that would be interested in a more diversified Ag Education program that offers curriculum in the Ag business and/or biotechnology fields.

- New high school construction model doesn't include Ag Education programs adequately

With the inadequacies of the Oakdale high school facility to cover the needs of the Linganore Ag Education program, the council feels that the new high school construction model doesn't include necessary classroom facilities for several of the Ag Education programs. As the population in Frederick County continues to grow, there will become a need for additional high schools. The committee would like to make sure the Board of Education supplies adequate lab and classroom space so the Ag Education programs can be offered in the new schools.

Opportunities

- Implement the CAERT program

FCPS is moving in the right direction to updating the Ag Education curriculum by purchasing the CAERT program. The PAC would like to see the BOE make sure the CAERT program is implemented and used in all the schools. This program will help build some of the weaker programs while further strengthening the strong ones.

- Compare curriculum to MAEF national standards curriculum

The Maryland Agricultural Education Foundation (MAEF) is promoting a project created by the National Council for Agricultural Education that defines the National Quality Program Standards for Secondary (Grades 9-12) Agricultural Education. The PAC feels this project would be very effective in evaluating Frederick County's programs to the national standards.

- Add Introduction To Plant, Animals & Mechanics to 8th grade

As more and more students become detached from agriculture because of the growing population, the opportunities for young people to explore the possibilities of an Agricultural related field become less and less. Many schools across the US have added middle school

programs to their curriculum. Not only does it generate a greater number of students that participate in Ag Education programs while in high school, but it also offers an opportunity for those students contemplating dropping out of school due to lack of interest. The Ag Education programs offer hands-on teaching, which involves the students more, thus increasing their interest in the program.

- Biotechnology curriculum added to the Ag programs

As said before, the council recommends that Biotechnology be pursued as another Ag Education program to be offered in Frederick County High Schools. However, if that is not possible, the council feels that biotechnology concepts be incorporated into current Ag Education programs to offer a more diversified Ag Education program.

- Add Leadership class as a possible ½ credit class

In the FCPS curriculum currently, there is a ½ credit leadership class that offers the leadership and 21st century skills that students need to be successful in today's society. However, that class has not been utilized, probably due to lack of promoting both by the Ag Education teachers as well as the guidance counselors. The PAC feels this class would be a great opportunity to offer an Ag Education class that would be very beneficial to all students.

- Create magnet schools within the high schools for certain Ag programs

As said before, there are several schools that the makeup of the student body doesn't lend itself to having some of the more traditional Ag Education programs. Also, if the more diversified programs, such as Biotechnology were added, there would be some schools that wouldn't be able to offer all the programs. With these types of situations, the council feels there could be a need for Magnet schools that could offer certain programs that are not offered at all schools. This could be a way to increase the student participation in some of the more diversified Ag Education programs.

- Offer after school opportunities

With the students having to take so many required classes, there are few opportunities for students to take Ag Education classes during normal school hours. However, after talking to several Ag Education teachers, the PAC feels there could be opportunities for after schools classes to be offered for students wanting to take certain classes but due to scheduling conflicts were not able to.

- Look at curriculums around the state and country to help with curriculum

Along with utilizing the national standards program to evaluate the Frederick County program, FCPS could also look at curriculums from around the state to see how Frederick County stacks up to other programs around the state and nation.

- Enhance PR for Ag Education

After looking at Ag Education enrollment numbers along with seeing how the Linganore at Oakdale situation occurred, the PAC feels there is definitely a need to enhance the PR for the Ag Education programs not only to the student population, but also to the guidance counselors, high

school principals and Board of Education. In addition to this report, the PAC will continue to promote and educate on the need for Ag Education programs in FCPS.

- Make sure newly hired Ag teachers are 11/12 month teachers

While researching the Ag Education programs, the council found that the Ag Education teachers were spending an extended amount of time outside of the classroom to offer adequate supervision, instruction and support of after school activities such as Career Development Events (CDE) and Supervised Agricultural Experience projects (SAE). There are only a few Ag Education teachers that are not 11/12 month teachers. However, the teachers that are not 11/12 month are very limited to the number of hours they are compensated for after school and summer programs. Therefore, the PAC recommends that all newly hired Ag Education teachers be hired as either 11 or 12-month teachers.

Threats

- Make sure New Linganore High School is built the way it is proposed

With the proposed county budget deficits over the next few years, the council feels the Linganore construction project could be looked at as a place to cut the budget. With the Linganore Ag Education program already being affected by the move to the Oakdale site, a cut to the Ag Education classes in the New Linganore high school could be devastating to the State's largest Ag Education program. The PAC requests that the Ag Education classrooms be built as proposed in the New Linganore High School.

- Make sure Linganore program is not weakened due to new location

Due to the classrooms being so small for the Ag mechanics classes, the numbers of students that can take Ag mechanics classes at the Oakdale site have been reduced dramatically. The PAC feels this will have a negative impact on the Ag mechanics program not only short term but also long term when the students are moved back into their new school. If the students are not able to take the level 1 and 2 classes, this will reduce the number of students that continue forward with the complete program and complete the level 3 and 4 classes as juniors and seniors. The students will be needed to further justify the need for the increased classroom size in the new Linganore high school. The Council recommends that BOE look into this situation and make sure the necessary classes are available during both spring and fall semesters and possibly after school as well, at least until the students are transferred back to the new Linganore high school.

- Make sure Ag Mechanics classes are available even if there are only 15 in a class

This recommendation is being made for Frederick County high schools, but especially for Linganore at Oakdale. With the classroom being so small that 15 students should be the maximum size, the PAC doesn't want to see an additional class (that would cover the overflow of students wanting to take a specific class) being cut due to the 15-student minimum.

- Science teachers teaching Ag Science classes

FCPS under the No Child Left Behind Act has to try to follow the highly qualified teachers mandate found in the act. However, having a science teacher teach an Ag Education class is

filling that teacher spot possibly with an unqualified teacher. The teacher will revert to teaching what he or she has been educated on and that most of the time has very little agriculture in it. The PAC recommends that the Ag science classes be taught by Ag Education teachers and not by Science teachers.

- Make sure Ag programs remain available in all the Frederick County high schools

After looking at the enrollment numbers over the past 5 years, the council feels that several Frederick County programs are weakening and could be done away with if not addressed now. There several reasons for these reductions in numbers from outdated curriculum, to external factors such as the highly qualified teachers under No Child Left Behind law and replacement of Biotechnology class with the Foundations of Technology, to change in student interest in traditional agriculture. Therefore, these programs need to be addressed immediately and updated, diversified and improved to sustain the viability of Ag Education programs in all Frederick County high schools.

- Ag classes being cut so Foundations of Technology classes can be taught

While researching the Ag Education programs, it was disturbing to the drastic reduction in student enrollment in Ag education programs around the county when Foundations of Technology was created as the required class. In addition, several of the Ag Education teachers were unable to offer Ag Education classes because they were instructed to teach the Foundations of Technology class instead. The Foundations of Technology class doesn't count as an Ag Education class and therefore increases the limitations for students to take Ag Education classes. The PAC recommends this be looked at and addressed.

Conclusion

We trust that this information will serve to make BOE members aware of the value and needs of the Ag Education programs in Frederick County, resulting in a high priority on making the program stay strong.

The Ad Education Program Advisory Committee and ultimately this report were created to help make sure the BOE and FCPS staff were aware of the need for these programs to help insure the viability of Agriculture in Frederick County. Over the years, the agriculture community has sat back quietly and observed the diminishing respect for agriculture in this county, state and country. Yet, they have continued to instill the leadership skills into all youth programs both in and out of school. Now seeing that those abilities to continue to teach agriculture skills and leadership skills to young people are threatened, the agriculture community and Ag businesses are speaking up. The PAC recommends BOE be open to input from the agriculture community. This PAC is willing to be a conduit between the BOE and the Ag community. Finally, this committee welcomes any questions, discussions or comments that the BOE might have.