



a how-to guide for
**Agriculture in the Classroom
Outreach**



What is agricultural literacy?

From on-farm events to reading books, career exploration and teaching classroom lessons, Agriculture in the Classroom programming is working toward an agriculturally literate society. That is, a society that understands and can communicate the source and value of agriculture as it affects our quality of life (Spielmaker, Pastor and Stewardson, 2013).

Agriculture in the Classroom outreach looks different state to state and county to county. Use this how-to guide to plan activities, add to existing events, or generate new ideas.

Why do teachers care?

- Agriculture has jobs! 923,000 in Michigan alone.
- Agriculture, Food and Natural Resources related industries make up Michigan's second largest economic sector.
- Agriculture lessons can integrate science, technology, math, and engineering while meeting state and national educational standards.
- Agriculture can provide a real-world connection for abstract concepts in learning.
- Community members can engage with students by making connections to local agriculture.
- Students will become consumers, neighbors, voters and engaged community members—teaching the value of agriculture now can impact the future.

Don't just take our word for it...



"Kids always love having visitors to their classrooms and they really enjoy the chance to meet someone who grows the food that they eat every day, and they like making that connection between the food they eat and the people who grow it for them. My favorite part of being a volunteer is that you are able to connect with people and help them learn more about something that is so basic and necessary in life which is food."

~Maria Brown,
St. Clair County Farm Bureau member



"One of the most exciting projects that I have taught is incubating eggs in the classroom. One of the Next Generation Science Standards is to study the life cycles of plants and animals. During the life cycle study, the students were exposed to a variety of non-fiction and agriculture-based texts, meeting our Common Core Standards by incorporating informational literature and participate by collaborating with other students about texts in small and large groups. The students were so excited to come to school every day to see the chicks' development! This was definitely one of the students' favorite parts of the year (as well as my intern's)! Once the eggs hatched my students invited their parents and siblings to come into the room to see our baby chicks."

~ Michele Butler, 2nd Grade Teacher,
Van Buren County



"Resources! Resources! Resources! I feel like I have so many websites, handouts, lesson plans, book suggestions and also new people that I've met as well that I can reach out for help in the classroom. I plan on ordering the Ag Magazine for my class when something relevant pops up."

~ Jodi Fabian, Preschool Teacher, Wayne County

LOGIC MODEL for AGRICULTURAL LITERACY PROGRAMS

National Research Agenda for Agricultural Education - Priority 1 (Doerfert, 2011)

- Increases understanding
- Demonstrates impacts
- Determines the potential of emerging technologies for communication

Situation: By 2050 the world's population is projected to reach nine billion people requiring agricultural production to double—with less land and water—while sustaining our planet. This increase in population will require more food to be produced in the next 50 years than the past 10,000 years combined (Borlaug, 2000).

National Agricultural Literacy Outcomes (Spielmaker, 2014)

- K-20 Assessment
- Program Evaluation

Long-term Result

An agriculturally literate society that understands and can communicate the source and value of agriculture as it affects our quality of life.

- Specifically, a society that:
- values agriculture
 - makes informed decisions and advocates for agriculture
 - supports rational and practical agricultural policies resulting in a food-secure nation
 - encourages the preparation of an agricultural workforce
 - works to ensure that farmers can provide a healthy, safe, and adequate food supply

From the Ground Up

Knowledge Attitudes Skills Behaviors Practices

Outcomes: Changes in...

Educators of PK-Adult Training K-20 Students/Youth Activities Policymaker Information Consumer-based Information

Outputs

Program Resources Human Resources Collaboration Partners
 Financial Resources Inputs

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References

Borlaug, N. (2000). Taking the GM food-aid debate to Africa: Are we going mad? Retrieved from <http://cabcuauat.edu/~anthro/taoc/readings/Borlaug%202000%20Going%20Mad.htm>

Doerfert, D. L. (2011). National research agenda: American Association for Agricultural Education's Researching Agricultural Literacy. Lubbock, TX: Texas Tech University, Department of Agricultural Education and Communications.

Spielmaker, D. M. (2013). National agricultural literacy outcomes. Retrieved from <http://agclassroom.org/teacher/matrix>

PILLARS

of AGRICULTURAL LITERACY

Understanding the intersection between agriculture and society.



FOUNDATIONAL KNOWLEDGE

Definition of Agriculture | History | Taxonomy | Identification | Production Awareness

How to use these tools

The Logic Model for Agricultural Literacy shows us how to plan our outreach efforts. As volunteers and program planners, this tool helps us to think about where to start and what resources we need to plan our educational initiatives with the goal of an agricultural literate society as our focus.

American Farm Bureau Foundation for Agriculture's Pillars of Agricultural Literacy help us group our agricultural education efforts into like categories of information. Learning objectives associated with each category can be found at www.agfoundation.org/resources/ag-pillars

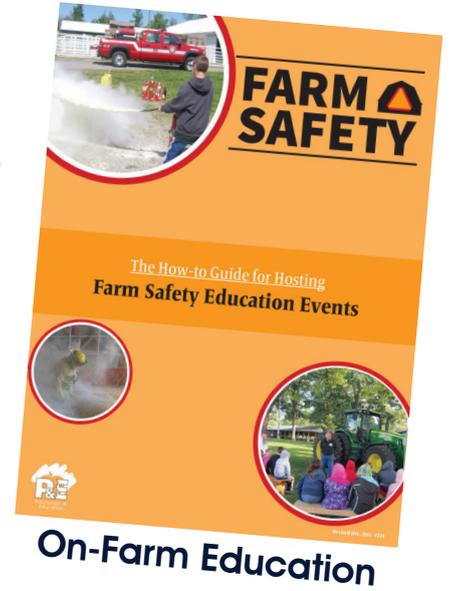
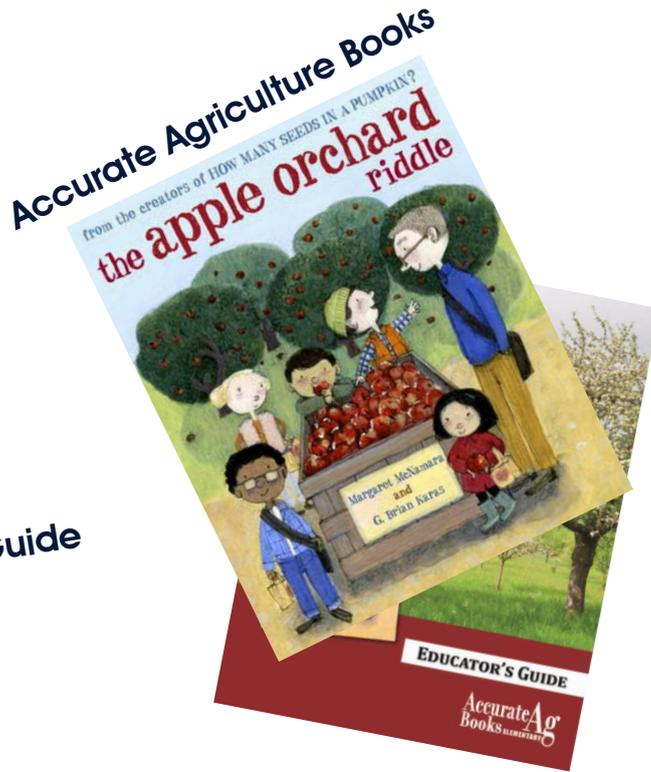
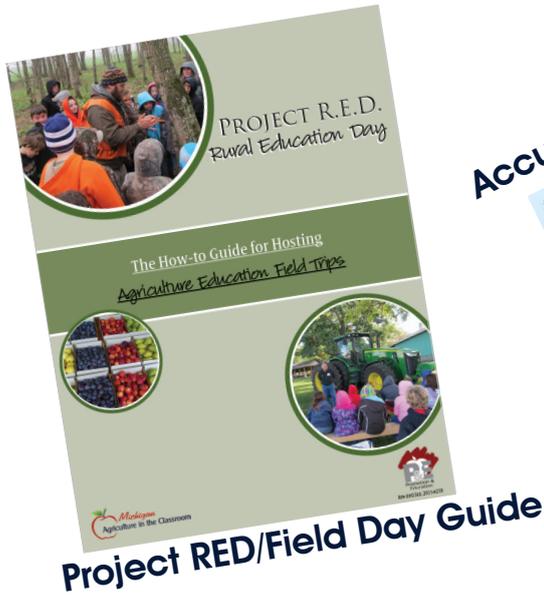
These objectives give us a starting point for planning appropriate activities for each age group, child through adult. Whether its at a county fair, local festival, classroom or on-farm event, consider focusing on just a few objectives.



Source: American Farm Bureau Foundation for Agriculture, 2012

Program Resources

Use the Help-Meet-Learn recipe template (page 13) to plan your next agricultural literacy outreach program. Check out these resources for ideas, books, lesson plans, handouts, and more!



FARM

Food, Agriculture & Resources in Motion

Science Lab

Extend Connections

Agricultural Invention Connection

Throughout history, agricultural inventors and inventions have played a key role in growing, harvesting and processing food, fuel and fiber to satisfy our most basic human needs.

Grade Level: 5

Objectives:

- Identify agricultural inventors and their respective inventions.
- Examine one agricultural inventor/invention.
- Research this inventor/invention, including timelines, terminology, procedures and historical significance.
- Write an informative essay conveying research findings.

Educational Standards

Writing:

CCSS.ELA-LITERACY.W.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

Reading:

CCSS.ELA-LITERACY.RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

CCSS.ELA-LITERACY.RI.5.8 Establish how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which points.

CCSS.ELA-LITERACY.RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

CCSS.ELA-LITERACY.RI.5.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity band independently and proficiently.

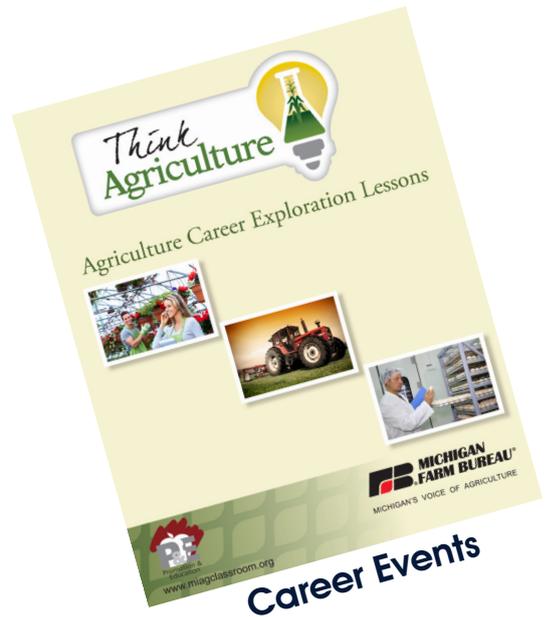
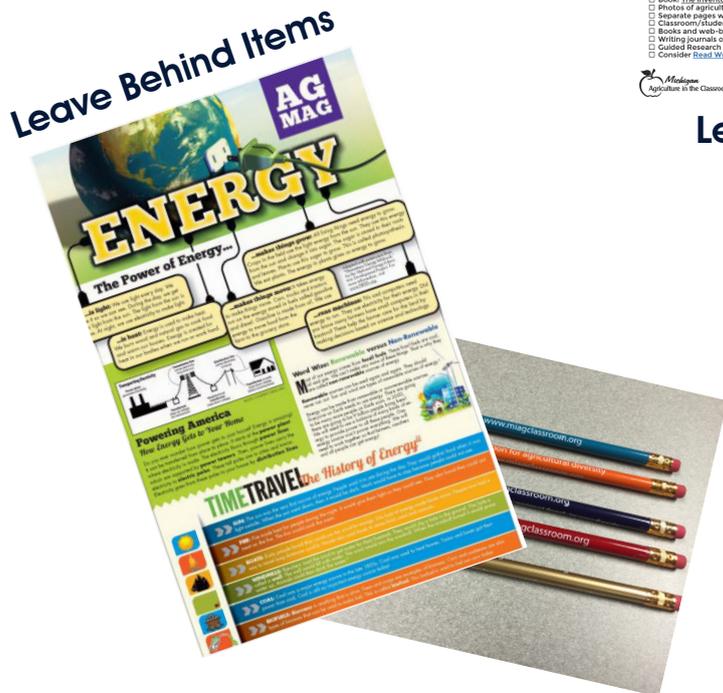
Materials

- Book: *The Inventor's Secret* by Susanne Slade
- Photos of agricultural inventions
- Separate pages with the year of each invention, to match the photos
- Classroom/student tablets
- Books and web-based resources for research
- Writing journals or paper/pencil for recording research
- Guided Research Worksheet
- Consider *Read Write Think* for additional pre-writing and writing resources



www.miacclassroom.org

Lesson Plans



Where to find these Program Resources

Visit these websites to find program resources to kickstart your outreach.

Local facts, Lessons and our Online Store
www.miagclassroom.org

National lesson database, conferences or grant opportunities for teachers
www.agclassroom.org

Accurate Ag Book lists, White-Reinhardt Grants, Teacher Scholarships and programs
www.agfoundation.org

Learning Games and partnering lesson from
www.myamericanfarm.org

Educational gaming plus lessons about agriculture around the globe
www.journey2050.com

For consumer-focused agriculture talking-points:

- Michigan Grown, Michigan Great—www.michiganagriculture.com
- Best Food Facts—www.bestfoodfacts.org
- GMO Answers—www.gmoanswers.com
- U.S. Farmers & Ranchers Alliance—www.fooddialogues.com

Human Resources

Consider how each of these individuals can assist in your program planning.

Program Planning and Execution

- **County Promotion and Education Chairperson and Committee**—this chairperson and committee are established within the county Farm Bureau structure to assemble project leaders, divide up volunteer responsibilities, plan budgets and assist in executing programming.
- **County Administrative Manager**—can assist volunteers with program logistics including making purchases, collecting registrations, making reservations, and printing needs.
- **State Promotion and Education Committee members**—serves as a resource for programming ideas, advice on where to obtain resources, mentor for county volunteer management or project execution.
- **Michigan Farm Bureau Regional Representative**—can serve in an advisory capacity to assist in volunteer engagement throughout planning and execution of event.

Content Experts or Volunteers

- **County Board of Directors**—consider how your county board members could serve as volunteers, help in planning, be a resource for farm tours, etc.
- **Commodity Advisory Committees**—looking for facts or a presenter about livestock or a specific crop? Ask county commodity advisory committee members to help!
- **4-H and FFA youth**—help local youth build leadership skills by volunteering to facilitate lessons, read to younger students or present on their own agricultural projects.

Educational Content Support

- **Michigan Farm Bureau Promotion and Education Department**—staff can assist in event planning by making recommendations for grade-appropriate activities, planning resources and funding sources.
- **Agriscience Educators**—build relationships with local agriculture teachers to support their programming or to gain assistance in making connections with younger grades within your district.
- **Local teachers, school board members, or administrators**—meet with these educational leaders to investigate ways to partner to bring agricultural lessons into classrooms in your community. Consider asking Farm Bureau members with school-aged children to share resources or program opportunities with their students' teachers.

Financial Resources

Money doesn't have to be a barrier to building agricultural literacy programs. Grant funding may be available to support these activities.

Funding available specifically to county Farm Bureaus

- County Farm Bureau budget
- Michigan Farm Bureau county grant program
- Award money from Champions of Excellence Awards or other award
- American Farm Bureau Foundation for Agriculture White-Reinhardt Grant

External Grants or Award Funding

These funding sources may not be directly available to county Farm Bureaus, however partnerships with schools and farms could help teachers find funding for agricultural education.

- America's Farmers Grow Rural Communities—www.americasfarmers.com
- United Dairy Industry of Michigan Dairy Promotion Grants (requires a dairy farmer to apply)
- National Agriculture in the Classroom CHS Teacher Grants (for teachers only)
- #SpeakAgMichigan Award program for FFA Chapters

Donations

Partner with these organizations and others for donations of items or possibly money.

- Community foundations
- Community organizations such as Rotary or Lions Clubs
- Agribusinesses
- Farm Bureau Insurance agents

Collaboration Partners

Partner with these organizations for planning, educational resources, local facts or community engagement.

- Teachers
- Commodity organizations
- Libraries
- School Boards
- Community service groups
- County Fair Boards or MSU Extension/4-H
- Farm Bureau Insurance agents

Planning Resources

Use the following pages to assist you in gathering ideas, planning agricultural literacy outreach, and executing your plans.

The **ABCs** of Agriculture in the Classroom

A

Ask the Teacher—

- Who should you ask? Teachers you know, grades you're comfortable with, etc.
- How should you ask? By phone/in person and follow-up with an email.
- What should you ask? Include the amount of time, location, dates available, etc.

B

Bring the Standards—

- Why would teacher's care about that? Help teachers meet the state-required objectives by showing lesson credibility and outlining grade-level appropriate concepts.

C

Content Connections—

- What subject area does this lesson pair with? Math, science, language arts, social studies, etc.

D

Digest Activities—

- What are you actually going to do? What will students do? Experiments, read books, demonstrations, etc.
- What facilitation techniques will you have to utilize? Directions, classroom management, audience involvement, etc.

E

Examine Supplies List—

- What do you need to pull off the activities? Books, fruit, veggies, soil, commodity samples, etc.
- What supplies can the teacher provide? Typical classroom supplies, science lab equipment, AV equipment, etc.

F

Finalize Plans –

- What does this include? Confirm with the teacher, confirm with your volunteers, double check supplies, etc.
- What makes perfect? Practice! Gather all volunteers and run through activities.



Ready to Plan

Use this recipe card template to outline your plan. Consider the agricultural literacy examples on pages 7-8.

EVENT NAME

TYPE OF EVENT

- | | | | |
|--------------------------------------|----------------------------------|---------------------------------|--------------------------------------|
| <input type="checkbox"/> Classroom | <input type="checkbox"/> Library | <input type="checkbox"/> Career | <input type="checkbox"/> Consumer |
| <input type="checkbox"/> Project RED | <input type="checkbox"/> On-Farm | <input type="checkbox"/> Safety | <input type="checkbox"/> Other _____ |

Target Audience: _____

HOT BUTTONS

Meet: _____

Help: _____

Learn: _____

EVENT SUMMARY

Time to Plan: _____ Average Cost: _____

Planning Items: _____

TIMELINE TO PLAN

EVENT NAME

Ag Awareness Day or Project RED

TYPE OF EVENT

Classroom

Library

Career

Consumer

Project RED

On-Farm

Safety

Other _____

Target Audience: Local 3rd Graders

HOT BUTTONS

Meet: other farmers and local teachers

Help: Educate area youth about agriculture

Learn: About the diversity of local agriculture and what is being taught to our youth

EVENT SUMMARY

This event hosts industry and commodity specific stations at the local fairgrounds. Classrooms from local schools rotate between stations every 15 minutes. Michigan Farm Bureau can assist with station talking points to meet grade-level educational standards.

Time to Plan: 4-6 months **Average Cost:** \$1,800 - \$2,000

Planning Items: location, presenters, invitations, food/snacks, gift bags for students, possible bussing

TIMELINE TO PLAN

6 Months - Contact Schools, Set Date, Reserve Fairgrounds; 4 Months - Gather station ideas, Find presenters for each station; 2 Months - Confirm with schools; 1 Month - Assemble gift bags for teachers/students, Contact media, Finalize station schedule and rotation, Confirm volunteers; Event - Set up for event, Prep food for presenters

Partnering Resources

Project RED Handbook

Educational standards assistance from MFB

P&E staff

EVENT NAME

Summer Reading Program

TYPE OF EVENT

Classroom

Library

Career

Consumer

Project RED

On-Farm

Safety

Other _____

Target Audience: Grade School Students

HOT BUTTONS

Meet: a farmer or agricultural professionals

Help: children grow their love for reading

Learn: the value of agriculture, food and natural resources in our daily lives

EVENT SUMMARY

Each municipal library has an opportunity to present a state-wide themed summer reading program in their community. This year's theme was "On Your Mark Get Set, and Read". The County Farm Bureau looked for a way to adapt the program with a focus on agriculture. For example: Baseball - "Hit a Grand Slam for Agriculture" - The CFB provided kits for the students to build baseball necklaces and bracelets followed by reading an agriculturereLATED book describing how agricultural products are used in the manufacturing of ball, mitts, etc. Football - "Watch it Grow" - topic was how all sports are connected to agriculture. Items to play the game are made from an agricultural product, the food from the concession stands come from farmers, etc. The students worked with a seeded paper in the shape of footballs, helmets and jerseys and took them home to plant. They are encouraged to return with their potted plant to show the growth and receive a prize.

Time to Plan: 2 Months **Average Cost:** \$100

Planning Items: agriculture books, educational materials, prizes

TIMELINE TO PLAN

2 Months - Identify participating libraries, Contact volunteers; 1 Month - Develop themes and lesson plans, Gather materials

Partnering Resources

Accurate agriculture books and lessons

EVENT NAME

Mini Project RED

TYPE OF EVENT

Classroom

Library

Career

Consumer

Project RED

On-Farm

Safety

Other _____

Target Audience: Grade School Students

HOT BUTTONS

Meet: farmers, agricultural professionals, students and teachers

Help: students and educators engage in local agriculture

Learn: teach students and educators the value of agriculture in their daily lives

EVENT SUMMARY

A Mini Project RED is an on-location event held at the school where a reasonable number of animals and presentations (usually agriscience education class projects) are presented to elementary classrooms to help them learn and get excited about agriculture. This event works well in conjunction with a local agriscience education program. The stations allow the elementary students to learn about different grade-appropriate aspects of agriculture and also allows middle/high school students to practice presentation and leadership skills. This type of event can foster collaboration between the high school agriscience teacher and elementary teachers as well as build community relationships with the county Farm Bureau.

Time to Plan: 2 Months **Average Cost:** \$50, varies on plans

Planning Items: Coordination with teachers, choosing a date and location that work best with the classrooms and school, additional educational materials/take home items.

TIMELINE TO PLAN

2 Months - coordinate with teachers and school. 1 Month - Finalize date and location and start working on supporting materials. This is also a good time to speak with the middle/high school students to keep them in the loop and let them know what is expected. 1 Week - Touch base with educators and student presenters. Finish touching up lessons/ take home packets.

Partnering Resources

Project RED Handbook

EVENT NAME

First Peas to the Table Contest and Lesson

TYPE OF EVENT

Classroom

Library

Career

Consumer

Project RED

On-Farm

Safety

Other _____

Target Audience: 2nd graders

HOT BUTTONS

Meet: educators and students in your local classrooms

Help: students make connections with local farmers and crops

Learn: plant life cycle, plant needs & how farmers use these concepts to raise our food

EVENT SUMMARY

Using the First Peas to the Table book and Educator Guide, help students plant pea seeds and monitor growth. Read the book to the class, then teach Activity 1 from the Educator Guide. Lesson that introduces students to the steps of the plant cycle and stages of pea growth. Then, have students plant their own pea seeds, individually mirroring the contest structure in the story book. If time permits, continue to visit the classroom throughout plant growth, helping students to transplant the peas outside. Use additional lessons in Educator's Guide as follow up lessons or provide teacher with resources to continue on his/her own.

Time to Plan: 2 Months **Average Cost:** \$20-100

Planning Items: Contact local elementary school or teacher, Selection and preparation of lesson plan and activity, Presentation of information to educator.

TIMELINE TO PLAN

2 Months - Contact the educator to introduce the Agriculture in the Classroom concept and pick a date/time that will work. 2 Months - Choose lesson plan in coordination with the teacher (in this case, plant cycles) and start working on hands-on activity. 1 Month - Touch base with teacher and other volunteers helping teach the lesson. Collect materials for lesson plan and activity. 1 Week - Touch base again and finalize lesson.

Partnering Resources

First Peas to the Table by Susan Grigsby

First Peas Educator Guide

EVENT NAME

Adopt-a-Classroom

TYPE OF EVENT

Classroom

Library

Career

Consumer

Project RED

On-Farm

Safety

Other _____

Target Audience: Pick one grade level or individual classroom

HOT BUTTONS

Meet: educators and students in your local classrooms

Help: students make connections to local farmers and crops

Learn: how farmers use science to raise our food

EVENT SUMMARY

Adopt-a-Classroom can look many different ways, but the most common is to host one classroom or grade level at a local farm for a field trip. Then follow up throughout the school year by visiting their classroom, teaching additional agricultural lessons. Incorporation of technology such as Skype, Facetime or a pre-recorded video could be used in place of a field trip or as follow-up throughout the school year.

Time to Plan: 3 Months **Average Cost:** \$50-200

Planning Items: Contact teacher/school, Set date and locations, Transportation, Field Trip plan/layout, Lesson plan and activity preparation.

TIMELINE TO PLAN

3 Months - Contact school/teacher and pick dates and a plan of action, present curriculum standards that will be included. Work with teacher to confirm transportation is taken care of. 2 Months - Touch base with teacher and prep your farm/community farm for the field trip.

Partnering Resources

Project RED Handbook (for farm visit tips)

Ag in the Classroom websites for lesson ideas

EVENT NAME

Accurate Agriculture Book Donations

TYPE OF EVENT

Classroom

Library

Career

Consumer

Project RED

On-Farm

Safety

Other _____

Target Audience: Community or Local School Libraries or Classrooms

HOT BUTTONS

Meet: community members who conduct child outreach or reading programs

Help: Share the accurate story of modern agriculture while supporting children reading

Learn: ways our libraries and educators help our students learn

EVENT SUMMARY

Book donations are a simple way to put accurate information about modern agriculture in the hands of consumers, parents, children and educators. A recommended book list can be found on the American Farm Bureau Foundation for Agriculture's website and through lessons on the National Ag in the Classroom website. These books can be purchased by a committee, a farm, a member, or a fundraiser and then presented to a library or classroom of your choice. Educator guides which include lesson plans and activities are a great resource for classroom donations. Be sure to put a sticker inside the donated books indicating your county Farm Bureau (or individual) donated the book.

Time to Plan: 2 Weeks - 1 Month **Average Cost:** \$15 - \$50

Planning Items: How will the books be purchased? What books to target? Where to donate the books? How to recognize the donation?

TIMELINE TO PLAN

2 weeks to 1 month from planned donation event, choose what books to purchase and how you want to raise the funds to purchase them. Once books are purchased, plan the donation event and enjoy spreading the story of agriculture.

Partnering Resources

Michigan Agriculture in the Classroom online store

AFBF Foundation for Agriculture book list

AFBF Foundation for Agriculture online store

EVENT NAME

FARM Science Lab Follow-Up

TYPE OF EVENT

Classroom

Library

Career

Consumer

Project RED

On-Farm

Safety

Other _____

Target Audience: K-5th grade students at one elementary school

HOT BUTTONS

Meet: Local educators, students and build relationships with local agribusinesses

Help: Share the accurate story of modern agriculture while supporting local schools

Learn: ways to incorporate agricultural lessons into school year

EVENT SUMMARY

Your county Farm Bureau has assisted in arranging for the FARM Science Lab to visit your local elementary school. Build upon this opportunity by providing the students with extra take-home pieces, donate additional accurate agriculture books to the school library, work with teachers to plan a visit to a local farm, invite students to your Project RED, or volunteer to teach additional lessons throughout the remainder of the school year. Help to extend student learning beyond the FARM Science Lab visit by continuing the relationship with the schools/teachers at whatever level of money and volunteer time is reasonable for your county.

Time to Plan: 1 month to 6 months **Average Cost:** \$10 per classroom and up

Planning Items: When is the lab visiting your school? Teacher coordination, Working with your county Farm Bureau to decide your level of engagement, Plan activity

TIMELINE TO PLAN

6 months or more promote the FARM Science Lab and be sure school has solidified reservation, 6 months-County Farm Bureau decides possible level of engagement and meets with school staff to plan, 3-4 months-Purchase necessary materials, 1 month-Confirm plans with school

Partnering Resources

FARM Science Lab website

Michigan Agriculture in the Classroom online store

National Agriculture in the Classroom lesson database

Lesson Ideas

With so many free-to-download lessons available, use this space to take notes on your favorite agricultural literacy resources!

Name of Lesson: _____

Grade Level: _____

Educational Standards: _____

Objectives: _____

Activity: _____

Source: _____

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Grade Level: _____

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Objectives: _____

Activity: _____

Source: _____

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Activity: _____

Source: _____

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Grade Level: _____

Educational Standards: _____

Objectives: _____

Activity: _____

Source: _____

Commodity Organizations

Our state commodity organizations are a great resource for commodity-specific facts, handouts, guest speakers, give-away items and even sometimes monetary donations.

Cherry Marketing Institute.....	www.choosecherries.com
Corn Marketing Program of Michigan.....	www.micorn.org
GreenStone Farm Credit Services.....	www.greenstonefcs.com
Michigan Ag Council.....	www.michiganagriculture.com
Michigan Agricultural Commodities.....	www.michag.com
Michigan Allied Poultry Industries, Inc.....	www.mipoultry.com
Michigan Apple Committee.....	www.michiganapples.com
Michigan Asparagus Advisory Board.....	www.asparagus.org
Michigan Bean Commission.....	www.michiganbean.org
Michigan Beef Industry Commission.....	www.mibeef.org
Michigan Beekeepers Association.....	www.michiganbees.org
MBG Marketing-The Blueberry People.....	www.blueberries.com
Michigan Christmas Tree Association.....	www.mcta.org
Michigan Floriculture Growers Council.....	www.mifgc.org
Michigan Forest Resource Alliance.....	www.michiganforest.com
Michigan Grape & Wine Industry Council.....	www.michiganwines.com
Michigan Horse Council.....	www.michiganhorsecouncil.com
Michigan Maple Syrup Producers Association.....	www.mi-maplesyrup.com
Michigan Pork Producers Association.....	www.mipork.org
Michigan Potato Industry Commission.....	www.mipotato.com
Michigan Soybean Promotion Committee.....	www.michigansoybean.org
Michigan Sugar Company.....	www.michigansugar.com
United Dairy Industry of Michigan.....	www.udim.org
Michigan Wheat Program.....	www.miwheat.org

Logic Model For Agricultural Literacy Reference Page

Assumptions

1. A majority of the U.S. population is not agriculturally literate⁶.
2. Opinions—not facts or evidence—sometimes drive decisions.
3. There is a decrease in graduates entering agricultural careers.
4. Paid staff are able to effectively train educators and implement the logic model.
5. Curriculum and resources are high-quality, rigorous, and linked to education standards.
6. All materials and activities are science-based and experiential.
7. Consumers have an increased interest in their food choices and availability.

External Factors

1. Teachers lack time to add to their prescribed curricula.
2. Information available to the public is not always scientifically based.
3. Human and financial resources differ across states and programs.
4. Public and private funds may or may not be adequate.
5. The general public is not informed and/or concerned about the looming food crisis.

USDA Conference on an Agricultural Literacy – Logic Model Development Committee

National Institute of Food and Agriculture, U. S. Department of Agriculture
Dr. Nancy Valentine, National Program Leader, 4-H and Agriculture in the Classroom

Cooperative Extension

Dr. Jill Walahoski, Associate Extension Educator, 4-H Youth Development, University of Nebraska-Lincoln

Agriculture in the Classroom

Ms. Deanna Karmazin, State Coordinator, Nebraska Agriculture in the Classroom
Ms. Diane S. Olson, Director of Promotion and Education, Missouri Farm Bureau Federation
Ms. Monica Pastor, University of Arizona Cooperative Extension, Maricopa County
Dr. Debra Spielmaker, Associate Professor, Utah State University Extension; Applied Sciences, Technology & Education

U.S. Department of Education, Agricultural Education & FFA

Dr. Steve A. Brown, Educational Program Specialist, U.S. Department of Education and National FFA Advisor & Board Chair
Mr. Jay Jackman, Executive Director, National Association of Agricultural Educators
Mr. Tony Small, Director, Partner Services, National FFA Organization

American Farm Bureau Foundation

Ms. Angela Mayfield, Education Director, American Farm Bureau Foundation for Agriculture

¹Agriculture is broadly defined to include agriculture, food, and natural resources. This would include all of the industries, processes, and resources involved in the production and delivery of food, fiber and fuel that humans need to survive and thrive.

²Borlaug, N. (2000). Taking the GM food aid debate to Africa: Are we going mad? Retrieved from <http://artsci.wustl.edu/~anthro/bnc/readings/Borlaug%202000%20Going%20Mad.htm>

³USDA Economic Research Service - Effects of Trade on the U.S. Economy. (2013). Retrieved November 4, 2013, from <http://www.ers.usda.gov/data-products/agricultural-trade-multipliers/effects-of-trade-on-the-us-economy.aspx#.UnfdkBCQNWx>

⁴Goecker, A. D., Smith, P. G., Smith, E., & Goetz, R. (2010). Employment opportunities for college graduates in food, renewable energy, and the environment: United States, 2010-2015. Retrieved from <http://www3.ag.purdue.edu/USDA/employment/Pages/default.aspx>

⁵Doerfert, D. L. (2011). National research agenda: American Association for Agricultural Education's research priority areas for 2011-2015. Lubbock, TX: Texas Tech University, Department of Agricultural Education and Communications.

⁶Agricultural Literacy is defined as having the ability to understand and communicate the source and value of agriculture as it affects our quality of life.

References

American Farm Bureau Foundation for Agriculture. (2012) Pillars of Agricultural Literacy. Retrieved from: http://www.agfoundation.org/files/final_pillars_packet.pdf

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Spielmaker, D. M., Pastor, M., & Stewardson, D. M. (2014). A logic model for agricultural literacy programming. Proceedings of the 41st annual meeting of the American Association for Agricultural Education, Snowbird, UT.

