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Message from Joyce Hoppes

Dear Friends,

Agriculture literacy is critical to the agricultural industry and by extension to the Iowa economy. Helping students and adults understand where their food, fiber, and fuel come from and how it is important in their daily lives is our number one priority. I am so excited about the work that the Iowa Agriculture Literacy Foundation has been doing over the past couple of years. I can see the difference being made! Teacher professional development workshops give educators the skills they need to teach students about agriculture. STEM Festivals and inclassroom presentations are connecting with students and getting them excited about agriculture. Publications like *Iowa Ag Today* and the *My Family's Farm* books series make agriculture tangible and real to all audiences.

Our mission is to educate lowans. There is a strong focus on youth. The IALF programs help students and adults understand the breadth of agriculture and how lowa has a global role in producing



Joyce Hoppes Board Chair Iowa Pork Producers Association

corn, soybeans, pork and dozens of other commodities and goods through the agricultural sector. I have seen Agriculture in the Classroom efforts across the state expand over the past four years and the enthusiasm of teachers and students is so inspiring. Since 2014, IALF has worked with or engaged more than 584,000 students, more than 10,000 teachers.

These efforts will have a lasting impact on our state as we see more students pursue advanced degrees in agriculture, pursue jobs in the agriculture industry, and make informed decisions when purchasing goods for their family. One in every five jobs in Iowa is in agriculture which speaks to the importance of these efforts.

IALF has been at the table on behalf of the agriculture industry developing state social studies standards, leading science efforts, serving on the National Agriculture in the Classroom leadership team, leading the Iowa Council on Agricultural Education, and more. IALF has broadened the reach and access to audiences by creating professional development opportunities, creating resources for teachers to use, training future teachers, and doing in school classroom presentations.

In this report, you'll find stories that showcase the influence of the organization and recount the impact of agriculture literacy programs. The annual programs have been shown to impact approximately 63% of students in grades K-6 and another 21% of students in grades 7-12. Considering the annual budget, it could be calculated that impact only costs \$2.44 per student. For the value returned, I cannot think of a better investment.

Thank you for your support of IALF!

Joya Hoppes



Mission

The Iowa Agriculture Literacy Foundation mission is to educate Iowans, with a focus on youth, regarding the breadth and global significance of agriculture.

Programs



Inspiring Educators

Teacher professional development workshops give teachers the skills, tools, and background to be able to teach agriculture in their classroom. IALF conducted ten of these workshops last summer. IALF also offers two online graduate level courses and presentations at teacher conferences like the social studies conference, science conference, talented and gifted conference, and reading conference.



Focusing on Student Learning

STEM Festivals held across the state are a great way to connect with students to do hands on programming in agriculture. IALF also has a significant presence at the Iowa State Fair and many county fairs. IALF does classroom programs and presentations on demand like the Journey 2050 program that teaches sustainable agriculture in a fun online gaming platform.



Creating the Tools Needed

More than 120 lesson plans for grades K-12 are now on the IALF website connecting agriculture to a variety of subjects. There are also 400 lessons aligned to national standards through the curriculum matrix. IALF developed the first in a new series of student readers targeted to middle school students - *Iowa Ag Today*. We also translated our 4th grade publication into Spanish to be used by English Language Learners. The *My Family's Farm* book series is targeted to a 3rd grade reading level. The wind book and the pig book were both released this year.



Program Impact

Our annual impact numbers are collected and compiled in January to align with the National Agriculture in the Classroom Organization. The graph below represents numbers as of January 2018. We have grown the number of students engaged in learning about agriculture by more than 13 times! We are pacing approximately 500 students and adults ahead of last year and expect to exceed those impact numbers again in January of 2019 for the 2018 calendar year.



**IALF was created in May 2014

IALF uses the logic model for agricultural literacy programming developed by the National Center for Agricultural Literacy to help guide program development and evaluation. That logic model identifies specific inputs like program resources and links them to outputs – both activities and participant outputs. But ultimately through those outputs we hope to see outcome including changes in knowledge, attitude, skills, behaviors, and practices.

Resources: professional development, curriculum materials Activities: rainings, align to education tandards, present ands-on activities Understand the connections between academic subjects and agriculture careers Understand the importance and value of agriculture in daily life

The full Agriculture Literacy Logic Model can be found at <u>www.agclassroom.org</u>.



STEM Festivals

One of the early challenges we faced when we began planning for and implementing agricultural literacy efforts was limitations on time. Teachers are strapped for time. In today's information rich environment, students have limited attention spans. Even during free-flow events, parents are on an agenda wanting quick engagements, so they can move on to the next activity. How do you meaningfully engage students in an enriching educational activity? How do you get students excited about agriculture?

Over the past four years we have found that STEM Festivals are a great way to do just that. For the past four years Agriculture in



the Classroom programs across Iowa have been recognized with the Governor's STEM Advisory Council Seal of Approval. STEM Festivals are hosted across the state and invite a wide range of students, parents, and educators. Our activities are hands-on with a key agricultural message that we want students to walk away with. Students leave excited about agriculture and have an understanding of how agriculture is important in their lives.

Future Scientists, Technologists, Engineers, and Mathematicians

One of our most popular activities is 'Living Necklaces.' Using colorful water beads students plant a corn and a soybean seed in a clear plastic bag. We talk about what seeds need in order to germinate – water and warmth. The water beads provide the moisture needed and if worn as a necklace, body heat provides the warmth. For more advanced students we discuss the different between monocots and dicots – represented by the corn and soybeans - and why corn and soybeans are such important crops for Iowa farmers.

Another popular activity is our build-a-calf activity. Through this activity students flip a coin to determine if the calf gets a gene from the cow or the bull. They do this for a couple of different traits and we talk about the traits that make for good beef – leanness vs. marbling, muscle size, taste, etc. Students can start to understand how both genetics and management can affect the quality of beef we buy in the grocery store.

Another go-to activity is our pork portion size activity. Students select one of four objects they think is closest to the correct portion size of a serving of pork. The correct answer is three ounces or roughly the size of a deck of playing cards. Students weigh the objects to determine if they were right. Similarly, with this activity we talk about safe cooking temperatures for pork. Using a warming dish with hot dog pieces, students will measure the temperature of the hot dogs with a meat thermometer. If the internal temperature is 145 degrees F or more, they can declare the pork safe to eat. These activities get students thinking about science, technology, engineering and math principles and the activities only take five minutes to complete.



Social Studies Standards

There is no doubt agriculture has a large impact on lowa's economy. But agriculture's role in society is much broader. This workshop explored agriculture as it relates to lowa's history, the development of societies around the world, and contemporary global issues. We discussed geography (What do farmers grow where and why? How does this impact a society's cuisine, clothing, and shelter?) and economics (How does supply and demand change the prices we pay at the grocery store? Can consumer preference, technology, and even weather impact the global economy?). Teachers left the session with ideas and resources to help students explore food, fuel, and fiber production as it relates to history, geography, and economics.

Through a partnership with the Iowa Council on Social Studies, IALF was able to offer a one-day workshop to teachers from around the state. This fast-paced professional development gave K-12 teachers, extension personnel, and other educators the skills they need to implement many of the new Iowa Core social studies standards. Using agriculture as the context to teach social studies, course participants integrated agriculture to make learning real and relevant for students. Participants left the workshop with instructional strategies, lessons, and activities that could be immediately implemented into their classroom with little or no additional effort.

Breakout Learning

As part of the workshop, participants had the opportunity to experience an agriculture themed lockbox and learn all about agricultural commodities along the way. Using resources like books and clues hidden in student magazines, participants first had to unlock a four-digit lock. For example, participants discovered the process of raising swine as they search out clues that provide the combinations to the locks. They faced a series of four more locks before they were finally able to open the box and discover what was inside. They learned that a serving of pork is three ounces. They learned that a pig that is ready for market will weigh around 275 pounds. They learned about by-products and how many different products we use every day come from agriculture. They learned about corn and soybeans that help make up a balanced swine feed ration.

The hot new trend in education uses student's innate



puzzle solving skills to immerse them in learning. Breakout EDU turns activities into an academically-focused game play using teamwork and critical thinking skills to solve a series of challenges. Modeled after popular escape rooms, instead students try to break into a locked box using clues they find along the way. Agriculture in the Classroom efforts across the state try to stay current with educational trends and make sure that the materials are aligned to educational standards. The breakout activity kit and lesson plan are available for checkout along with many other educator resources from the IALF lending library. This immersive learning game is a great way to cap a lesson on swine or other agricultural topics for students.



Resources & Financial Management

Strategy Information

We all know schools are strapped for budgetary resources and often teachers dip into their own pockets to ensure they have what their classroom needs. We strive to eliminate as many financial barriers as possible so that all teachers can use our materials and all students have the opportunity to learn about agriculture. This includes posting resources for free online, but also includes making our guest speaker services and student publications free and available to educators. The grants, sponsorships, and donations throughout the year directly support IALF programming and operation allowing us to work toward our mission. Because of operational efficiency, we've calculated the cost of our impact is only \$2.44 per student.

Fiscal	Year	2018	Financial	Overview	

Revenue	
Contributions Received	\$ 534,588
Total Operating Income	\$ 534,588
Expenses	
Personnel	\$ 273,808
Program Services	\$ 239,468
Other	\$ 29,601
Total Operating Expenses	\$ 542,873
Net Increase (Decrease) in Net Assets	\$ (8,285)
Net Assets	\$ 82,923







Looking Forward

We are excited for the upcoming year as we already have plans to expand our existing programming and reach more students. We have launched a middle school version of the lowa Ag Today publication and will develop the second and third issues. We are in the process of developing the sixth and seventh books in the My Family's Farm series – My Family's Apple Farm and My Family's Egg Farm. We will offer another semester of our popular online water quality course and are planning as many as twelve summer teacher professional development workshops.

The IALF Team

The IALF team brings together passion, dedication, and years of experience in agriculture and education to provide resources to teachers.



Will Fett Executive Director

Cindy Hall Education Program Manager

Melissa Anderson Chrissy Rhodes Administrative Assistant

Education Program Coordinator

Melanie Bruck Education Program Coordinator

Laura Mincks **Education Program** Intern

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We Need Your Help

Throughout this past year we've made great strides to connect lowa students with the agriculture that provides their food, fiber, and energy. We want students to be proud of the state they live in and that means being proud of the agriculture that creates the backbone of the economy.

You can be a part of this energy and momentum! You can help students across lowa learn about agriculture by visiting our website <u>www.lowaAgLiteracy.org</u> and clicking the <u>Donate</u> button.

Show Your Support

You can also show your pride and support of Iowa agriculture and students by adding a specialty license plate to your vehicle. Proceeds from the sale of the plate will support three important youth organizations that help students learn about



agriculture, leadership, and life skill – Iowa FFA, Iowa 4-H, and Iowa Agriculture in the Classroom. Plates are now available from your county treasurer's office. Visit www.lowaAgTag.org to place an order or to learn more.

Volunteer and Help Make a Difference

Not everyone can make a financial contribution. If you would like to volunteer to help deliver high-quality agriculture lessons and activities in your local community, please email us at info@iowaagliteracy.org.







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