



STEM Support for Ag Science Working Group "SSAg-SWoG" June 23, 2015

Huxley Learning Center

Presentation Outline



- i.** Refresh the group's memory on charge to your working group, and background (who's involved, processes, key issues) (5 min.)
- ii.** Outcomes: Recommendations for action (10 min.)
- iii.** Comment period for Council members (10 min.)

Team Members

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Melanie Bloom
Lynne Campbell
Jerry Deegan
Rob Denson
Greg Dufoe
Matt Eddy
Will Fett
Deb Frazee
Dale Gruis
Robin Habeger
Jacob Hunter
Rachel Hurley

Alissa Jourdan
Pradeep Kotamraju
Yvette McCulley
Melissa Moyer
Susan Oleson
Josh Remington
Michael Retallick
Jay Staker
Catherine Swoboda
Eric Trager
Jeremy Varner
Jonathan Wickert

The SSAg-SWoG Charge



Identify ways and means for STEM Council to support Agricultural Science, including how Ag Science could satisfy graduation requirements as core science credit.

Our Guiding Principles



With an enhanced focus on food & agriculture in K-12 schools in Iowa, including science credit for food & agriculture courses, the lives and futures of students will be enriched by an understanding of:

- The diversity of food & agriculture in Iowa and the world,
- The organization and development of a growing and changing system of food & agriculture and
- The knowledge and engagement of STEM in food & agriculture and how it will impact the development of food & agriculture around the world.

Food for Thought



Food for Thought (pun intended) Rural America: The Last 100 Years

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All numbers in millions

	U.S. pop.	Urban	Rural	% urban	% rural
2010	308.7	249.2	59.5	80.7%	19.3%
1990	248.7	187.0	61.7	78%	22.0%
1970	203.3	149.7	53.6	73.6%	26.4%
1950	151.3	96.9	54.4	64.0%	36.0%
1930	123.2	69.2	54.0	56.1%	43.9%
1910	92.2	42.0	50.2	45.6%	54.4%

“Rural America is becoming less and less relevant to the politics of this country, and we had better recognize that.”

-Secretary Tom Vilsack, Dec. 2012

Source: Census Bureau

Our Initial Top Priorities



- All things CASE (credit, funding, teachers, curriculum, etc)
- Broadening the understanding of “Modern Agriculture” & all that entails (Iowa’s natural resources & importance in the world, as well as the innovations, opportunities and diversity in Iowa Agriculture)
- Ag/Science Teacher Education, Internships, Certifications, etc.

Our Workgroup agrees that:



- We must encourage Iowans to embrace the concept that “STEM is Agriculture & Agriculture is STEM” and model the way for our youth and the general public.
- We must emphasize that Iowa is rich in resources and jobs that will rival those in any industry anywhere in the world.
- We need to increase the understanding that Food & Agriculture includes many opportunities outside of what people often associate with the term – banking, insurance, nutrition, math, engineering, programming, analytics, genetics, machinery, etc. It’s hard to find an area of industry that doesn’t relate in some way to food and agriculture.

Prong #1



Curriculum (e.g. CASE) credit for high school, community college & university – as well as for the Regents Admission Index.

- i This is a multifaceted task and we've identified committee members to lead each area of focus.
- i Each area will build upon the other and we'll be working together to be sure we've addressed the various impediments and/or philosophical hurdles.
- i CASE would be used as a pilot to develop a process to consider/approve similar curriculum.

Prong #2



Food and Agriculture Education outside of the above-noted high school curriculum that will touch more students, more quickly, more frequently and more efficiently is the other prong we are addressing.

- i We believe these programs can be expanded throughout the state and work in tandem to build upon one another.
- i Our committee will work to determine what exists, how the programs overlap, where improvements and/or investments could be made to expedite delivery to more kids, earlier in their educations and more frequently throughout.

Food & Agriculture Educ Continuum



K	1	2	3	4	5	6	7	8	9	10	11	12	Post-2ndary	Graduate	Adult Ongoing
Ag In the Classroom - Iowa Ag Literacy Foundation															
Nutrients for Life Curriculum - Nutrients for Life Foundation															
4 -H (Clover Kids - College?)															
							Ag Education (in schools that choose to offer it)								
FFA (PALS - Middle School - HS - College - PAS)															
									CASE			Maybe someday			
						World Food Prize (WFP) School Based Programming									
								WFP Iowa/Global Youth Institutes							
									WFP Borlaug Ruan Intern						
										WFP Wallace Carver Fellowship					
												Teacher Prof Dev			
															Ag literacy (media outreach, public events, and career professionals)

Next Steps



- The members of SSAg-SWoG would like to continue working on the two tandem prongs identified above throughout the next year.
- Will Fett (Iowa Ag Literacy Foundation) has agreed to co-lead the workgroup along with Rachel Hurley.
- We would like to add two new participants to the committee – Brea Harms (John Deere) and Laila Downs (ISU Grad Student) – who are already working on a variety of Ag Ed related projects that overlap with those identified by SSAg-SWoG.

Future Steps Anticipated



- If all goes as planned, we will **eventually request STEM Council support for:**
 - ! the legislative and/or administrative changes necessary to make CASE (as a pilot program in which we document the process for future utilization, relative to other curriculum) eligible for science credit.
 - ! resources needed to ensure all teachers properly certified. We will continue to inventory how many teachers are currently dual-certified to teach Ag and Science in every high school in Iowa and the costs associated with necessary updates. (*Side note: It is hard to understand that schools like Ankeny and Johnston have NO ag programs.*)
 - ! increased funding from the State of Iowa – ideally distributed through the STEM Council and the Hubs for Food & Ag Education.



Thanks for your time.
Now Let's Discuss!

