

FarmLab Study
Phase 1 - Needs Assessment
Appendix E - Food and Ag Literacy

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Introduction

Ag literacy demonstrates appreciation for the many relationships between agriculture and society and helps consumers understand where their food comes from.¹ Improving ag literacy is an important aspect of cultivating connection to place and helping people appreciate how the agriculture affects their well-being. However, knowing where one's food comes from is not enough to empower consumers to take control of their health and nutrition. Consumers also need access to healthy food and knowledge of how to prepare it in a safe and practical manner. Food literacy therefore complements ag literacy by starting with the perspective and experience of the consumer and considering their particular needs in context. It considers how people receive the information about food and agriculture communicated to them and then make choices based on that knowledge.²

Ag Literacy

"The Pillars of Agricultural Literacy" published by the American Farm Bureau Agriculture Foundation are intended to promote consistent agricultural messages and standards for reinforcing ag resources used in the schools. They define ag literacy as the ability to:

"understand the relationship between agriculture and the environment, food, fiber and energy, animals, lifestyle, the economy and technology."³

Table 1 summarizes the various components of these "pillars":

Table 1: Pillars of Ag Literacy

The Relationship Between Agriculture and:					
The Environment	Food, Fiber and Energy	Animals	Lifestyle	Technology	The Economy
Land and Water Stewardship	Food Safety Inspection	Animal Welfare Animal Safety	Food Cost Nutrition	New Developments	Careers Impact on US Economy
Family Responsibility	Energy Sources	Animal Housing Systems	Processing	Impact of Technology	Hunger
Environmental Decision-making	Shared Values Ethics Production Methods		Healthy Living	Biotechnology Environmental Impact	Role in Global Economy

Source: "The Pillars of Agricultural Literacy," American Farm Bureau Agriculture Foundation (2013)⁴

The corresponding standards also outline foundational knowledge in ag vocabulary and industry terms; ag history; product identification and use; and production awareness. They are designed to promote ag literacy throughout life in sync with the progressive cognitive development of learners. Early childhood education might focus on awareness of animals involved in agricultural production and how farmers care for them, while high school students would learn the difference between animal welfare and animal rights.⁵

Food Literacy

In their study "Defining Food Literacy, its Components, Development and Relationship to Food Intake: A Case Study of Young People and Disadvantage," Vidgen and Gallegos define food literacy as "a collection of interrelated knowledge, skills and behaviours required to plan, manage, select, prepare and eat foods to meet needs and determine food intake."⁶ Table 2 describes the capacities they associate with individual food literacy:

Table 2: Food Literacy Skills and Behaviors

Planning and Management: <ul style="list-style-type: none">• Prioritizes money and time for food• Maintains consistent access to food through planning (independent of circumstances or environment)• Makes practical food decisions balancing needs and available resources	Selection: <ul style="list-style-type: none">• Knows how to access food through preferred sources• Knows how to identify ingredients, their sources, and how to store and use a product accordingly• Can judge the quality of food.
Eating: <ul style="list-style-type: none">• Understands that diet affects personal well-being• Moderates food intake for health• Enjoys eating as a social activity	Preparation: <ul style="list-style-type: none">• Has adequate culinary skills to make a good tasting meal from available ingredients• Knows basic food safety principles

Source: “Defining Food Literacy, its Components, Development and Relationship to Food Intake: A Case Study of Young People and Disadvantage,” Vidgen and Gallegos (2012)⁷

The impacts of food-related disease have driven renewed emphasis on improving nutrition and public health through healthy eating styles, such as the USDA’s MyPlate campaign (www.choosemyplate.gov). Child nutrition in particular has risen to the forefront of many initiatives, such as the Healthy, Hunger-Free Kids Act of 2010. According to Vidgen and Gallegos, food literacy improves nutrition by empowering consumers to eat more consistently, wisely, and enjoyably.⁸ However, nutrition and improved diet are also a function of social determinants of health such as poverty, culture, and environment.

“Decision making around food is complex. So many different factors drive people’s choices—not just knowledge about nutrition but also how one has been socialized around food (e.g., whether someone grew up eating dinner at the table or going out for fast food), how food is marketed (i.e., marketing influences attitudes and behaviors), whether and which foods are available (e.g., the proximity of grocery stores), and policies around food (e.g., how many fast food restaurants are allowed in one’s neighborhood).”⁹ (Vidgen and Gallegos)

Understanding how food is marketed, accessed, and regulated through policy can also help people appreciate and navigate the complexity of food decision making.¹⁰ Furthermore, the benefits of improving literacy go beyond nutrition, including social connectedness, ethical and sustainable food choices, and food security. While Vidgen and Gallegos began their study focusing on food literacy as an individual capacity, it was also conceptualized as an attribute

that empowered “food citizens” at household, community, and national levels.¹¹ In his text “Rebuilding the Foodshed,” Philip Ackerman-Leist distinguishes this role as follows:

“Citizens will studiously delegate decisions about food and agriculture to people who will be stewards of the common good; consumers will merely relegate these decisions to someone else. Better yet, citizens will take it upon themselves to create more just and resilient food systems. And not just *local* food systems, but *community-based* food systems.”¹² (Ackerman-Leist)

Farm to Fork

As food systems have become increasingly centralized to serve larger geographies, they have become much more complicated and much less comprehensible to consumers. Ag literacy helps consumers connect the dots between production and their own diets. However, when 90% of the food people consume was grown somewhere else,¹³ and the majority of the crops they see around them are not foods they would ever consume directly, these connections become blurred. Improving access to fresh, locally produced food is essential to helping people make these connections more clearly.

As this study seeks to reinforce, schools provide an obvious and essential starting point for cultivating food and ag literacy. In his study, “Opportunities for Farm-to-School in Hancock County, Indiana,” Ken Meter observes:

“Students ... will be more interested in eating healthy fruits and vegetables because local produce is fresher and more flavorful. In addition, they will be more inclined to eat fruits and vegetables that they have seen growing in the fields or in their own gardens. Proponents also argue that schools can provide an environment that stimulates better eating habits from an early age by showcasing local produce and how to prepare it.”¹⁴ (Meter)

Students have the potential to share these habits and influence meals at home, providing one approach to educating adults who can be very hard to reach otherwise. As a result, the Elkhart County Farm Bureau has generally found educating youth to be the most effective focus for their resources to improve ag literacy, according to Moudy.

Increasing food literacy among adults is a priority for charitable food networks, helping clients become more aware of opportunities to obtain fresh, healthy, affordable, and culturally appropriate food. Church Community Services supports the Men Alive produce stand on site and has introduced new mentorship programs through Seed to Feed. The Elkhart County Health Department provides nutrition education through the WIC program and has set up an on-site farmers market specifically to improve redemption of WIC farmers market checks.

Introducing new, unprocessed foods and encouraging cooking from scratch must be accompanied by education about food safety. Purdue Extension Elkhart County promotes food safety skills and knowledge through its Family Nutrition Program and food preservation workshops. Referencing increasing misinformation about food preservation that is not backed by science, Mary Ann Lienhart-Cross noted that food safety can be a particular concern with Conservative Mennonite populations who have not learned basic science at school.

According to Meter, foodborne illness costs Indiana \$3 billion each year.¹⁵

School health and wellness

Increasing and clarifying focus on food literacy would directly align with the work of school wellness initiatives. In 2007, Congress passed legislation requiring all schools participating in the National School Lunch Program or other federal Child Nutrition programs to establish local school wellness policies.¹⁶ The final rule published in July of 2016 requires all school wellness policies to include the following components (among others):

- “Specific goals for nutrition promotion and education, physical activity, and other school-based activities that promote student wellness.
- Nutrition guidelines for all foods and beverages available or for sale on the school campus during the school day that are consistent with Federal regulations for:
 - School meal nutrition standards, and
 - Smart Snacks in School nutrition standards.
- Policies for other foods and beverages available on the school campus during the school day (e.g., in classroom parties, classroom snacks brought by parents, or other foods given as incentives).
- Policies for food and beverage marketing that allow marketing and advertising of only those foods and beverages that meet the Smart Snacks in School nutrition standards.
- Description of public involvement, public updates, policy leadership, and evaluation plan.”¹⁷

In 2010, the Elkhart County Healthy Schools Workgroup formed as a collaborative effort between Elkhart General Hospital, IU Health Goshen, the Elkhart County Health Department, Purdue Extension Elkhart County, and all seven public school districts in the county. The purpose of the workgroup was:

“To provide schools and parents with information that will enable them to improve the eating behaviors of students by creating an environment where healthy food and beverage choices are offered in all areas of the school, especially areas that are outside federally regulated child nutrition programs. These areas include, but are not limited to vending machines, a la carte sales, food rewards, fundraisers, concessions, school stores, school parties, after-school activities, and meetings.”¹⁸ (Elkhart County Healthy Schools Workgroup)

The Healthy Schools Workgroup produced “Healthy School Food: A booklet for students, parents, and schools”¹⁹ to disseminate recommended guidelines.

The Coordinated School Health program guides school health services in promoting school wellness. Included among eight core components is a focus on integrating “nutritious, affordable, and appealing meals, nutritional education, and an environment that promotes healthy eating behaviors for all students.”²⁰ They are charged with encouraging the inclusion of healthy foods on menus, but this can be difficult. Paraphrasing the observations of one area wellness coordinator:

“Some of the issues are controversial. It has been difficult enough to have discussions about the food served in the cafeteria. Some parents become irate at the idea that the school would tell their kids what to eat. Socially, diet has been considered something that is up to the individual.”²¹

Promoting ag literacy in the schools through ag education and ag in the classroom activities can encourage students to consider ag careers, appreciate the lessons learned through farm to school initiatives, and better understand where their food comes from. Food literacy can help extend this awareness to support the efforts of Coordinated School Health programs promoting nutrition and wellness initiatives, including farm to cafeteria efforts. Food literacy can also provide a common target with the schools for community organizations and institutions seeking to reduce food insecurity and food-related disease.

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21. This information was gathered by the authors in an interview for a separate unpublished study.