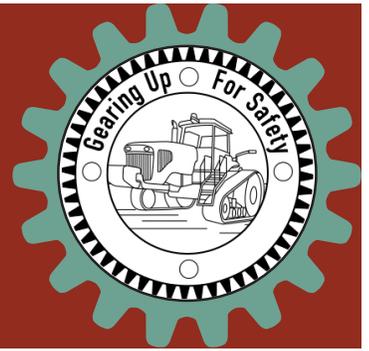


GEARING UP FOR SAFETY

Production Agriculture Safety Training for Youth

Evaluation



INTRODUCTION

Consistent and objective testing, evaluation, and assessment¹ are extremely important components of an educational curriculum. It is not sufficient to assume that the delivery of information or exposure to learning activities, in whatever format, will result in desired outcomes. Measuring changes in knowledge, skills, and attitudes require some form of testing that utilizes appropriately validated test instruments and/or observations.

Currently, the Hazardous Occupations Order in Agriculture (HOOAs) provide little concrete guidance on how program leaders and instructors who conduct the prescribed training should test participant readiness for employment. The regulations do not identify specific desired core competencies, nor are there testing criteria provided that establish minimum levels of mastery for knowledge or performance skills. For students enrolled in supervised occupational experiences, such as Supervised Agricultural Experience (SAE) programs offered by many agricultural education programs, there

are currently no specific testing requirements provided as a basis for HOOAs certification. Youth who complete training provided by either local Extension Services (4-H) or agricultural science and business instructors are required to “pass” both a written and practical examination in order to be certified to operate tractors and machinery. However, no specific guidelines are provided by the HOOAs concerning the contents of the testing, its scope, rigor, or expected performance levels for desired competencies. Regarding the practical component of the evaluation process, the regulations only specify that a student be able to demonstrate his or her ability to operate a tractor and two-wheeled trailer/implement through an obstacle course similar to ones used for 4-H Tractor Operator Contests. Again, no specific guidelines are provided on specific performance skills being appraised or level of performance or mastery expected.

As part of the GEARING UP FOR SAFETY curriculum design process, it was determined that more consistent, objective, and outcome based methods of testing prior to youth receiving HOOAs certification were needed. Even though not required by the regulations, having a better defined testing process would enable instructors to assess the skills of each student against a set of standard performance criteria and identify specific areas of weakness that must be addressed prior to certification and potential employment. It was concluded that the testing process and tools also needed to determine mastery of an identified set of minimum core content areas specified by the HOOAs as well as those related to agricultural workplace hazards not addressed by the law when implemented over 50 years ago. The process also needed to have some flexibility to accommodate currently used testing methods and differences in training due to geographic locations and differing agricultural work practices that youth might be employed to perform.

¹ The terms “testing”, “evaluation”, and “assessment” are often used interchangeably even though some educators may assign slightly different meaning to each. For this material the term “testing” is most often used.

The following section of the LEADER'S GUIDE provides you with an overview of the testing methods and tools designed specifically for use with the GEARING UP FOR SAFETY curriculum. It contains everything needed to administer the required Written Exam, Pre-Operational Exam and Operational Exam. These aids should provide you with additional confidence that participants in your program have met and/or exceeded expectations established by the current HOOAs.

Remember, a test is not a tool to punish the test taker but rather a means to assess that they are adequately prepared under the provisions of current regulations to be employed to perform certain hazardous activities. The examination process has been tested as an integrated process and should be administered as presented; otherwise testing results may not be valid.

TESTING PROCESS:

The GEARING UP FOR SAFETY testing process involves the following three step testing of each participant:

1. Written exam

- Covers basic knowledge and competencies needed to safely operate agricultural tractors and machinery (taught in Lessons 1-14)
- Uses a 70 question exam
- Required minimum passing score of 70%

2. Pre-Operational Exam

- Includes three sections designed to evaluate physical readiness, identification of essential components, and performing a pre-operational safety inspection of a typical agricultural tractor
- Includes 51 evaluation points
- Requires minimum passing score of 85%

3. Operational Exam

- Requires youth to independently operate an agricultural tractor and towed trailer through a standard tractor driving course, and requires outside of class supervised practice
- Includes 29 evaluation points
- Requires fewer than 20 infractions to pass

The testing process is designed so that each participant must successfully complete each step in the process prior to advancing onto the next level of testing. Failure to successfully complete any of the three steps prevents moving onto the next level and eventual certification for exempted employment under the HOOAs.

For the certification process to be accepted as credible and successful in achieving its anticipated outcomes, it cannot be a “rubber stamp” process. There must be an assumption that some participants, for a variety of reasons, may not successfully complete each of the necessary testing steps. Certification cannot be achieved solely as the result of participation, but rather through documented evidence that a specific youth has acquired and/or demonstrated, as required by federal regulations, the knowledge and performance skills required to safely operate agricultural tractors and machinery, and perform other allowable farm-related tasks considered hazardous. Research and experience has shown that not every 14 or 15 year old youth is prepared intellectually, emotionally, or physically to safely perform certain hazardous tasks. It is not a failure of either the program or the youth, as a result of the testing process, to identify those who may be put at substantial risk of injury if employed – it should be seen as a measure of the program's success.

The following sections include descriptions of the three testing components designed as part of the GEARING UP FOR SAFETY HOOA Certification process. Instructions for using each of the testing instruments are provided in each respective section.

