

AGEP FIELD CROPPING SYSTEMS
Field Cropping Systems Review Report
(Course Instructor: Professor GÜNGÖR YILMAZ)

Dear Students,

As part of the Field Cropping Systems course to be offered during the Fall Semester of the 2026–2027 Academic Year, you are required to individually prepare a Field Cropping Systems Review Report within the framework of the Academic Development Activity Program (AGEP).

Through this assignment, you are expected to:

- Develop a solid understanding of the fundamental characteristics of field cropping systems;
- Compare different agricultural production systems using scientific criteria;
- Evaluate the environmental, economic, and social impacts of field cropping systems;
- Interpret different production systems in accordance with the principles of sustainable agriculture;
- Improve your ability to access scientific information, use reliable sources, conduct analyses, and prepare academic reports;
- Develop critical thinking and evaluation skills related to field cropping systems.

Reports prepared in accordance with the guidelines provided in this document will be evaluated as part of the Academic Development Activity Program (AGEP) implemented within the scope of this course.

1. SCOPE OF THE ASSIGNMENT

Each student is required to select four (4) different field cropping systems from the list provided below and prepare a comprehensive review of each system based on scientific literature.

The selection of systems is entirely at the student's discretion. However, all four systems included in the report must be different from one another.

Students may choose from the following field cropping systems:

- Conventional Farming System
- Organic Farming System
- Good Agricultural Practices (GAP)
- Conservation Agriculture System

- No-Till Farming System
- Reduced Tillage System
- Precision Agriculture System
- Sustainable Agriculture System
- Regenerative Agriculture System
- Integrated Farming System
- Dryland Farming System
- Irrigated Farming System
- Agroecological Farming System
- Smart (Digital) Agriculture System

For each selected field cropping system, the report should examine and evaluate the following aspects based on scientific sources:

- Fundamental characteristics;
- Principles and practices of implementation;
- Areas of application;
- Advantages and disadvantages;
- Environmental and economic impacts;
- Significance in terms of sustainable agriculture;
- Applicability in Türkiye.

2. REPORT CONTENT

The report should be approximately 12–18 pages in length and should include the following sections:

1. Cover Page
2. Table of Contents
3. Introduction to the Four Selected Field Cropping Systems
4. Comparison of the Field Cropping Systems
5. General Evaluation
6. General Definitions
7. References

2.1. Cover Page

The cover page must include the following information:

- Yozgat Bozok University
- Faculty of Agriculture
- Department of Field Crops
- Academic Development Activity Program (AGEP)
- Field Cropping Systems Review Report
- Course Title
- Course Instructor
- Student's Full Name
- Student ID Number
- Class/Year
- Academic Year

2.2. Table of Contents

The table of contents shall include all main headings and subheadings together with their corresponding page numbers.

Heading numbering should follow a hierarchical structure to improve the readability and organization of the report.

2.3. Field Cropping System Profile Forms

Students shall examine each of the four selected field cropping systems separately and prepare a profile form for each system. Each profile form should not exceed two pages.

All profile forms must follow the same format and organization.

Each profile form should include the following sections.

System Description

- Name of the field cropping system
- Brief description
- Historical development
- Current status of use worldwide
- Current status of use in Türkiye

Key Characteristics

- Fundamental principles of the system
- Production approach
- Soil management

- Plant nutrition approach
- Irrigation management
- Weed management
- Disease and pest management

Implementation Principles

- Conditions required for implementation
- Ecological regions where the system is preferred
- Level of mechanization
- Labor requirements
- Input use
- Key considerations for production planning

Advantages

The following aspects should be evaluated for each field cropping system:

- Benefits for producers
- Contributions to soil fertility
- Effects on the efficient use of water resources
- Environmental benefits
- Economic advantages

Disadvantages

The following issues should be discussed for each system:

- Challenges encountered during implementation
- Effects on production costs
- Environmental risks
- Labor requirements
- Factors limiting the adoption of the system

Evaluation in the Context of Türkiye

Each selected field cropping system should be evaluated with respect to:

- Its applicability in Türkiye;
- Regions where it is commonly practiced;
- Aspects requiring further improvement;
- Future potential for adoption and development.

Figures

A minimum of two figures shall be included for each field cropping system.

Among these:

- At least one figure must be a photograph taken by the student or obtained directly from the field or application site.
- The remaining figure(s) may be obtained from reliable scientific or institutional sources.

The sources of all figures used in the report must be properly acknowledged.

2.4. Comparison of the Field Cropping Systems

Students shall compare the four selected field cropping systems according to the criteria specified in these guidelines.

The comparison shall be presented in the form of a table.

Ödev değerlendirme tablosu için en doğal ve akademik İngilizce karşılıklar şunlardır:

Assessment Criteria	Systems 1	Systems 2	Systems 3	Systems 4
Soil Conservation Level				
Water Use Efficiency				
Production Cost				
Labor Requirement				
Level of Mechanization				
Environmental Impact				
Yield Potential				
Sustainability Level				
Applicability in Türkiye				

When comparing the selected field cropping systems, students may use one of the following rating scales:

- Low
- Moderate
- High

or

- Poor
- Moderate
- Good
- Very Good

All evaluations presented in the comparison table should be supported by scientific sources and should also reflect the student's own interpretations and critical assessment.

2.5. General Evaluation

After examining the four selected field cropping systems, answer the following questions based on scientific evidence and your own evaluation.

1. Among the field cropping systems you examined, which one do you consider to be the most applicable to agriculture in Türkiye? Explain your answer with appropriate justification.
2. Which field cropping system do you consider to be the most advantageous for the conservation of natural resources and the promotion of sustainable agriculture? Provide supporting reasons.
3. Compare the field cropping systems you selected in terms of ease of implementation from the producer's perspective. Which system is the easiest to adopt and which is the most difficult? Justify your comparison.
4. Considering current agricultural challenges such as climate change, drought, and soil degradation, which field cropping system do you believe will become more important in the future? Explain your reasoning.
5. Which field cropping system would you recommend for Yozgat Province and other regions with similar ecological conditions? Support your recommendation with scientific justification.
6. Based on the strengths and weaknesses of the systems you examined, discuss the practices that you believe should be further improved in the future.

2.6. General Definitions

Using reliable scientific sources, explain the following concepts in your own words.

1. Field cropping system
2. Sustainable agriculture
3. Conventional agriculture
4. Organic agriculture
5. Conservation agriculture
6. Precision agriculture
7. No-till
8. Tillage
9. Crop rotation
10. Agroecology

2.7. References

All books, journal articles, theses, official publications, online resources, and figures used in preparing the report must be cited in accordance with accepted academic referencing standards.

When preparing the reference list, the following principles should be observed:

- Scientific books, peer-reviewed journal articles, and theses should be used as primary sources.
- Students are encouraged to consult reliable institutional resources, including the Ministry of Agriculture and Forestry of the Republic of Türkiye, TAGEM, Turkish Statistical Institute (TurkStat), FAO, universities, and other reputable organizations.
- For information and figures obtained from the Internet, both the URL and the date of access must be provided.
- Every source cited within the text must be included completely and accurately in the reference list.

3. IMPLEMENTATION SCHEDULE AND SUBMISSION

The Field Cropping Systems Review Report shall be prepared according to the schedule announced before the final examination of the spring semester. Students are expected to begin working on the assignment during the summer term and submit the completed report as a single PDF file by the 7th week of the fall semester.

The file name must follow the format below:

StudentID_FirstNameLastName_FieldCroppingSystemsAGEP.pdf

Example:

Reports submitted after the specified deadline will be evaluated in accordance with the course implementation policies.

4. ORAL VERIFICATION

Following the submission of the reports, each student will participate in a brief oral verification session regarding the prepared assignment.

During the oral verification, students will be expected to:

- Explain the fundamental characteristics of the selected field cropping systems;
- Compare the similarities and differences among the selected systems;
- Interpret the comparison table they have prepared;
- Explain their conclusions based on scientific evidence.

The purpose of the oral verification is to assess the student's understanding of the submitted report and to verify that the work has been prepared independently based on the student's own knowledge and effort.

If deemed necessary, the course instructor may request additional explanations regarding any part of the report.

5. ASSESSMENT

The submitted reports will be assessed out of 100 points according to the assessment criteria presented below.

Assessment Criteria	Points
Selection of field cropping systems in accordance with the guidelines	10
Accuracy and adequacy of the scientific information presented for the selected field cropping systems	20
Selection of field cropping systems in accordance with the guidelines	10
Accuracy and adequacy of the scientific information presented for the selected field cropping systems	15
Use of reliable scientific sources and compliance with academic citation and referencing standards	10
Comparison of field cropping systems based on scientific criteria	10
Adequacy of the analyses and interpretations presented in the General Evaluation section	10
Accuracy of the general definitions and appropriate explanation of the concepts	10
Organization of the report, compliance with academic writing standards, and appropriate use of figures	3
Ability to explain the report scientifically during the oral verification	2
TOTAL	100

Reports will be assessed according to the assessment criteria presented above.