



Under the High Patronage of  
The Governor of El Oued Province



The Higher School of Saharan Agriculture – El Oued  
organizes:



The Second Study Days on Saharan Agriculture:



**Meeting the Student with the Farmer**

**December 03–04, 2025**



Higher School of Saharan Agriculture, El Oued

### Objectives of the Event

- ✓ Identifying the main agricultural problems related to plant health and animal production in the region
- ✓ Establishing an integrated database for these issues
- ✓ Formulating agricultural problems in the form of research projects for students



**Towards Integrating Students  
into the Field**



**Together, for a better and more sustainable future!**





## Introduction:

In light of the growing challenges facing Saharan agriculture, there is an increasing need for scientific and developmental initiatives that enhance coordination among the various stakeholders and link academic training with on-the-ground realities. In this context, the Second Study Days on Saharan Agriculture: “Meeting the student with the farmer” are being organized under the high patronage of the Governor of El Oued Province, reflecting the importance that public authorities attach to the development of this strategic sector and to supporting scientific initiatives with tangible developmental impact.

This event represents an interactive platform that brings together farmers, university lecturers, and experts specializing in Saharan agriculture from within and outside the higher education and scientific research sector, alongside local actors involved in agricultural activities. It aims to open channels for dialogue and exchange of expertise, and to diagnose the real-world problems faced by farmers, thereby contributing to the formulation of practical, scientifically based solutions.

The organization of these study days comes in response to a set of justifications, foremost among them the pressing need to bring together all stakeholders in a shared space for discussion and consultation, particularly in the absence of an integrated database that accurately identifies the major agricultural problems affecting the region. This initiative also falls within the university institution’s vision of making an effective contribution to sustainable solutions by transforming these issues into applied research projects for fifth-year students, thus strengthening the university’s role in serving its economic and social environment.

The event aims to identify the most significant local agricultural problems, establish a comprehensive database of the main challenges faced by farmers in Saharan regions, and formulate these challenges as research topics amenable to scientific investigation. In this way, the study days contribute to supporting agricultural innovation and promoting sustainable development in arid environments, in line with international trends that emphasize the importance of participatory scientific research and the involvement of farmers in developing solutions suited to their environmental and economic specificities.





## **Description of the Scientific Event**

### **A- General Presentation of the Scientific Event**

The Second Study Days on Saharan Agriculture: “Meeting the student with the farmer” constitute a forum that brings together farmers, university lecturers, experts in the field of Saharan agriculture from within and outside the higher education and scientific research sector, as well as stakeholders active in the agricultural field at the regional level.

### **B- Justifications for Choosing the Event**

- The urgent need to bring together all actors in the agricultural field within a shared space for discussion.
- The absence of an integrated database on the major agricultural problems affecting the region.
- The school’s desire to address agricultural problems by transforming them into research projects for fifth-year students.

### **C-Objectives of the Scientific Event**

- To identify the most important agricultural problems in the region.
- To establish a comprehensive database of the main challenges faced by farmers in the region.
- To formulate agricultural problems in the form of research projects for students.

### **D- General Stages of the Process of Identifying Agricultural Problems**

As part of the preparation for the Second Study Days on Saharan Agriculture: “Meeting the student with the farmer,” a comprehensive methodological approach was adopted, consisting of two complementary stages to ensure the collection of accurate data covering the most significant problems faced by farmers in our region.

#### **1. First Stage: Conducting the Field Survey**

A dedicated survey questionnaire was developed by the school’s Professors and designed to include a set of questions addressing agricultural problems related to plant health, and other factors affecting crop production. The questionnaire also included a section devoted to issues related to animal production, with the aim of identifying the challenges facing livestock and poultry farming, such as feeding problems and animal diseases.

This questionnaire was distributed by the school’s students to a group of farmers in the region over the period from 26 October to 26 November 2025, with the objective of collecting direct field data from practitioners themselves regarding the actual problems and challenges they face.

#### **2. Second Stage: Organizing the Study Days as a Session for Data Analysis and Integration**

The Second Study Days on Saharan Agriculture: “Meeting the student with the farmer” constituted the second stage of the identification process, as they provided a shared space for direct dialogue among students, Professors, academics, and stakeholders active in the agricultural field. During these study days, the results of the preliminary survey were presented and discussed collectively, allowing for a deeper analysis of issues related to plant health and animal production.



## Proceedings of the Second Study Days on Saharan Agriculture: “Meeting the student with the farmer”

**Day One – 03 December 2025**

**Morning Session ( 09:00- 12:30)**

The activities of the first day of the Second Study Days on Saharan Agriculture: “Meeting the student with the farmer” opened with the recitation of verses from the Holy Qur'an, followed by standing in respect for the national anthem, as an expression of the national values and spirit of belonging that frame this scientific initiative.



This was followed by a welcoming address delivered by the Director of the School, Professor Elhabib Guedda, in which he welcomed the distinguished guests from the local authorities, foremost among them the Governor, as well as university lecturers, experts, farmers, and stakeholders in the agricultural sector from within and outside the higher education and scientific research sector.

In his speech, the Director introduced the scientific event and its objectives, emphasizing the importance of these study days in bringing together stakeholders within a shared space to discuss agricultural issues. At the conclusion of his address, he thanked the Governor of the province for his high patronage of these study days and for his contribution to supporting their success.



This was followed by an address by the Governor of the province, Mr. El Arabi Behloul, who expressed his pleasure in sponsoring this scientific initiative aimed at identifying agricultural problems in the region. He highlighted the strategic importance of the Oued Souf region in strengthening Algeria's food security and praised the vital role played by the School in developing and improving agricultural production in the region. He also affirmed his continued support for the School's efforts, granting it the “White Badge” for all its future plans, as a confirmation of his commitment to providing all the means necessary for the success of its research and training programs.





In the presence of the Governor of the province, Dr. Hafsa Benras delivered a scientific presentation devoted to presenting the results of the field surveys conducted by the School's students with farmers from the region. The presentation included an analytical overview of the most important agricultural problems raised at the local level, with particular emphasis on issues related to plant health, such as diseases and pests affecting crops, as well as problems related to animal production, both in terms of health prevention and livestock productivity.

The following are the main results that were presented:

### **Areas of Survey Distribution**

As part of this study, a field survey of farmers' opinions was conducted in several areas of El Oued Province, with the aim of diagnosing the main problems they face in agricultural activities and animal husbandry. Data collection focused primarily on two main axes:

The extent of the spread of pests and diseases affecting crops and livestock.

The protection and prevention methods adopted by farmers to reduce these problems.

The survey covered 47 farmers active in different areas across El Oued Province, distributed among the following localities:

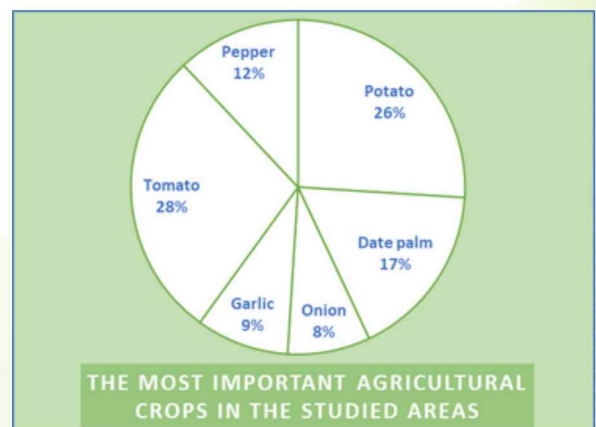
El Meghaier, Hassi Khalifa, Debila, Hassani Abdelkrim, Reguiba, Dmitha, Robbah, El Ogla, and Oued El Alenda.

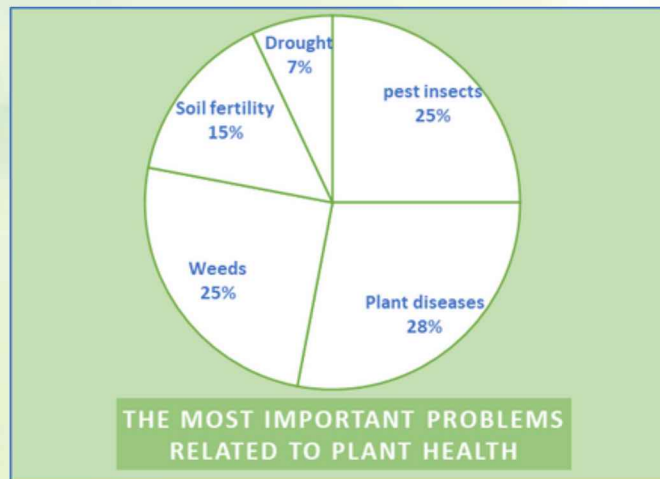
This diverse geographical distribution made it possible to obtain a relatively comprehensive picture of the reality of agricultural problems in the province and contributed to identifying research intervention priorities, particularly in the fields of plant health and animal production, according to a participatory approach that relies on involving farmers in diagnosing problems.

## **Results**

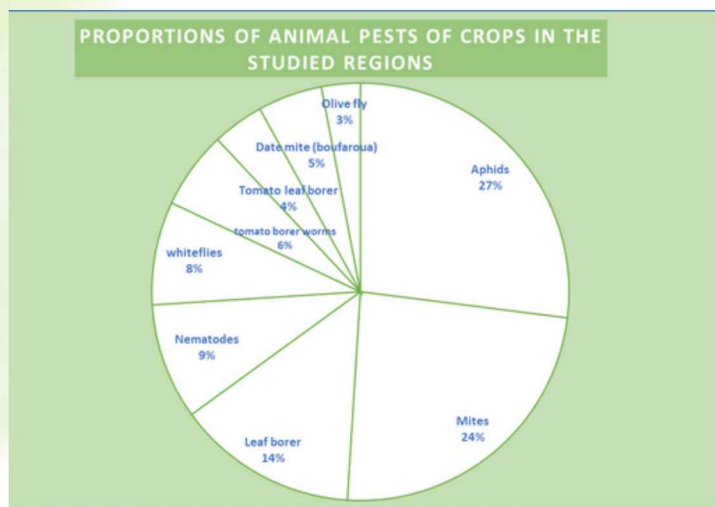
### **Part One: Agricultural Problems Related to Plant Health**

The survey results showed that the relative composition of crops cultivated in the study areas was characterized by diversity. Tomato cultivation accounted for the largest share, representing 28% of the total reported cultivated areas/activities, followed by potato cultivation at 26%, reflecting their prominent position within the local production system.





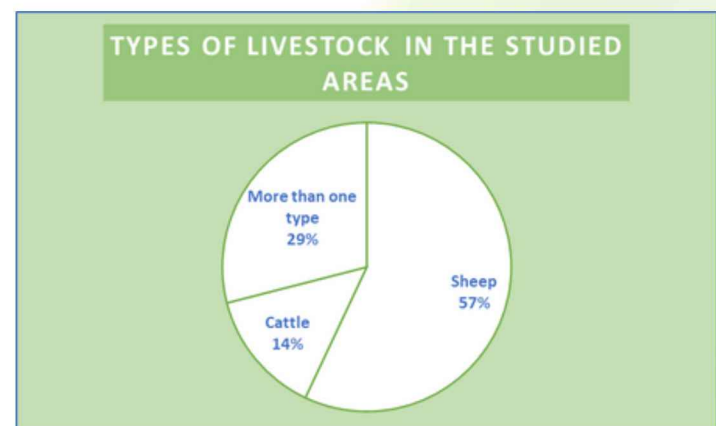
The findings also indicated that agricultural problems related to plant health are distributed across several main axes, including infestation by harmful insects, Plant diseases, as well as weed problems. This reflects the complexity of the challenges facing crop production in the studied areas.



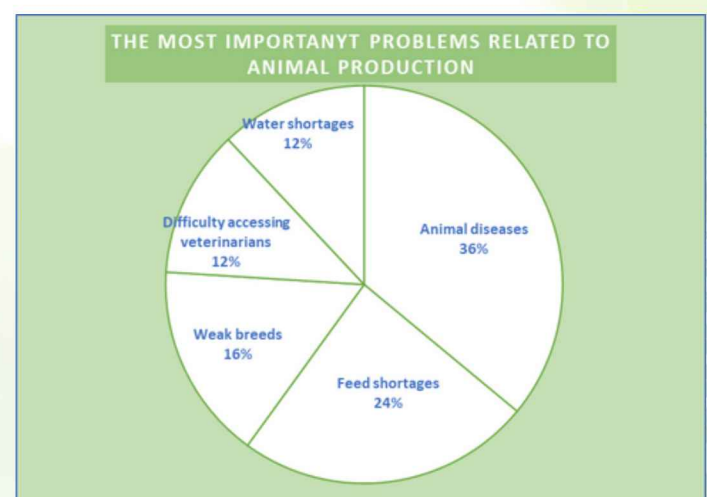
The survey results further revealed that the insects and pests responsible for agricultural losses comprise several species, among the most significant of which are aphids, fruit flies, leaf miners, as well as mites and nematodes. Together, these constitute some of the most important factors limiting crop productivity in the areas under study.

## Part Two: Animal Production

The results of the data collected from livestock breeders in the study areas showed that sheep and cattle rearing are the most widespread animal production activities in the region, reflecting the central role of these two sectors within the local animal production system.



The survey findings indicated that the problems associated with animal husbandry are mainly due to the spread of diseases, in addition to shortages of feed resources, particularly the scarcity of fodder and its high cost. These factors negatively affect herd health and productive performance.





## Interventions et discussion

During the first day of the event, following the opening ceremony and the coffee break, the floor was given to the investor Bakkar Ghemmam Hamed, who delivered a valuable lecture on the history of agriculture in El Oued Province, its current state, and its economic and social importance. He highlighted the transformations experienced by the sector and its role in supporting local development. This was followed by a presentation by the manager of the El Dhaouia Model Farm, Mr. Belkheir Djballi, who addressed the farm's role in practical training and the field opportunities it provides for students in linking theoretical knowledge with hands-on experience.



Subsequently, the President of the Livestock Breeders' Association of El Oued Province, Mr. Ali Gaboussa, intervened, emphasizing the need to give greater importance to livestock breeding and to work toward preserving the region's agricultural heritage, particularly in light of the rapid pace of development experienced by Saharan agriculture. He called for achieving a balance between modernization and the preservation of local specificities.



For his part, the Dean of the Faculty of Natural and Life Sciences, Dr. Abdelmalek Zaâter, delivered an encouraging address in which he commended the efforts of the organizers, wished success to the students, and stressed the importance of such initiatives in supporting university training and strengthening its openness to the social and economic environment.



Mr. Ahmed Moussaoui, manager of the Souf Li Dairy Plant, also emphasized the importance of accompanying students in the field, presenting figures on the number of students hosted by the dairy plant since its establishment, which exceeded 800 students. This reflects the effective role of economic institutions in supporting practical training.



In addition, the representative of the Directorate of Fisheries and Aquaculture delivered a presentation in which he encouraged students to consider the field of aquaculture, stressing that it is a promising sector that could constitute a qualitative addition to agricultural diversification in the region.

As for the students of the School, they had an active presence through the presentation of their saffron cultivation experiment conducted at the El Dhaouia Model Farm. The presentation was delivered by the student Ibtehal Sassoui on behalf of her colleagues, outlining the stages of the experiment and its most important preliminary results.

The floor was then given to Professor Sofiane Seqqaï, who emphasized the pedagogical importance of this event, as it allows for the identification of real problems experienced by farmers and livestock breeders in the Oued Souf region, which will be transformed into topics for graduation theses during the upcoming academic year.

At the conclusion of the presentations, the discussion was opened to the audience to raise questions and concerns, which were recorded and transformed into working themes for the afternoon workshops. The morning session of 03 December 2025 concluded with a closing address by the Director of the School, Professor Habib Guedda, who reaffirmed the importance of this event and the necessity of the involvement of all stakeholders in serving the interests of the region and supporting sustainable agricultural development.





## Afternoon Session ( 14:00-17:00)

The afternoon session was devoted to organizing two workshops aimed at deepening the identification and discussion of agricultural problems and opening an interactive space for the exchange of expertise and practical experience among farmers, experts, Professors, and students.





## Workshop 1: Agricultural Problems Related to Plant Health

### Objective of the Workshop:

To identify and analyze the most prominent agricultural problems related to plant health in the region, with a focus on diagnosing their causes and evaluating the effectiveness of solutions currently applied in the field.

### Workshop Themes:

The workshop addressed three main themes:

- Plant diseases
- Animal pests
- Weeds



**Workshop Moderator:**  
**Abdasattar Cherif**

### Reporters:

Prifessors: Aïcha Ben Hedjira, Aïcha Merzouk, Rima Hajouti, Randa Melik, Mariem Khadraoui

### Participants:

Professors: Samira Zeghti, Sara Ben Abdallah, Bilal Ben Omar, Mohamed Lamine Rabhi, Mahfoud Babao Ismail, Mouane Aïcha, Aliat Sawsan Mofida, Abderrahmane Dheyliz, Mohamed Berkebia, Abdelmounem Khemouli, Rawia Lebihi, Zoubir Ben Saadia, Laid Dahbi, Belkacem Douimi

In addition to a number of farmers and other participants.

### Workshop Content

- First Theme: Animal Pests (Insects, Rodents, Birds)

Discussion focused on the types of pests prevalent in the region, their geographical distribution, and the extent of the damage they cause to various agricultural crops.

- Second Theme: Plant Diseases

Examination of the most impactful plant diseases affecting production, with emphasis on diagnostic mechanisms, prevention methods, and the environmental and technical factors contributing to their emergence and spread.

- Third Theme: Weeds

Review of the main weed species affecting agricultural production and discussion of the methods used to control them and their effectiveness.

### Discussion Questions:

- Do the pests identified through the surveys truly represent the most significant plant health problems in the region?
- What are the reasons behind the limited effectiveness of the solutions currently applied in the field?
- What practical solutions or innovations have been tested in the field? Which have proven successful or unsuccessful, and why?



## Workshop 2: Agricultural Problems Related to Animal Production

### Objective of the Workshop:

To diagnose the main problems facing livestock breeders in the region, analyze their causes, and propose practical solutions to improve animal production efficiency.



workshop Moderator 1  
Khalifa Serrouti



workshop Moderator 2  
Abdarazzak Bougazala

### Reporters:

Professor Siham Karnaz

Professor Mohamed Amine Fares

### Participants:

Professors: Nouredine Slimani, Samia Miliani, Leila Sahraoui, Abdelkader Attia, Ahmed Menai

### Workshop Content:

The workshop addressed a set of key issues, including:

- Feeding problems, fodder shortages, and high feed costs.
- Animal diseases and methods of prevention.
- Management and veterinary care.
- Animal breeds and their suitability to local climatic conditions.
- Economic difficulties associated with animal husbandry.

### Discussion Themes and Questions:

- Do the identified problems truly represent the main challenges facing the animal production sector in the region?
- Why do current solutions fail to achieve the desired results? Is this due to a lack of guidance, weak veterinary support, or limited use of available technologies?
- Are there successful field experiences or innovative solutions among breeders? What are the reasons for their success or failure?



## Key Outcomes of Day One

Field	Main Problems
Plant Protection	<ol style="list-style-type: none"><li>1. Nematodes in Potato Crops.</li><li>2. Whiteflies in tomato and cucurbit crops.</li><li>3. European corn borer.</li><li>4. Aphids.</li><li>5. Sparrows.</li><li>6. Rodents.</li><li>7. Carob moth.</li><li>8. Arabian rhinoceros beetle.</li><li>9. Mites in potato Crops.</li><li>10. Mites in date palms.</li><li>11. <i>Apate monacus</i>.</li><li>12. Tomato leaf borer.</li><li>13. Rye brome.</li><li>14. Water and soil salinization in Ben Qashah and Shakshak area.</li><li>15. Wheat smut (common bunt of wheat)</li><li>16. Fusariosis (Fusarium disease / Fusarium head blight)</li><li>17. Phytophthora disease</li><li>18. Alternaria leaf spot (Alternariosis)</li><li>19. Downy mildew</li><li>20. Rhizoctonia disease (Rhizoctonia root rot / damping-off)</li><li>21. Botrytis gray mold</li><li>22. Sclerotinia rot (white mold)</li><li>23. Tomato yellow leaf curl virus (TYLCV)</li></ol>
Animal Production	<p>The transition from an extensive pastoral system to an intensive system has resulted in confining animals without providing the technical requirements necessary for intensive livestock production.</p> <ol style="list-style-type: none"><li>2. The spread of notifiable diseases such as foot-and-mouth disease, bluetongue, brucellosis, vector-borne diseases, and trypanosomiasis in camels.</li><li>3. Lack of a preventive veterinary medicine culture.</li><li>4. Widespread metabolic diseases due to insufficient nutritional balance in rations and the absence of grazing on natural rangelands.</li><li>5. Erosion of genetic resources due to uncontrolled crossbreeding, leading to the loss of genetic traits adapted to the desert environment.</li><li>6. Problems related to agricultural land tenure and the degradation of rangeland areas.</li><li>7. Lack of integration between crop production and livestock farming.</li><li>8. High cost of inputs compared to outputs.</li><li>9. Knowledge gaps and an urgent need for technical guidance and extension services.</li></ol>



## Day Two: 04 December 2025

### Morning session (09:00-12:30)

The activities of the study days continued on the second day with an in-depth discussion of agricultural problems related to plant health and animal production, through the organization of two specialized workshops attended by experts, academics, and supervising Professors. The task of facilitating the workshops was entrusted to their respective facilitators, who led the scientific discussions on the problems that had been identified and diagnosed during the first day.

### Methodology

The workshops adopted a unified analytical methodology, whereby each problem was addressed individually by answering a set of reference questions, including:

- Determining the level of importance of the problem (high, moderate, or low).
- Identifying whether the problem is recent or long-standing in the region.
- Clarifying the nature of the causes of the problem, whether technical in nature or resulting from the weakness or limited availability of existing solutions.
- Identifying the requirements and means necessary to study and address the problem.
- Determining the appropriate type of study, whether it requires field research, laboratory research, or a combination of both.
- Proposing at least three titles for research projects that can be derived from each problem, with a view to transforming them into graduation thesis topics or applied research projects.





## Closing Ceremony of the Study Days (14:00-15:30)

After the completion of discussions on the agricultural problems in the region, the conference recommendations were prepared by the scientific committee of the study days. The closing ceremony included:

### 1. Presentation of the Study Days' Recommendations

Delivered by Professor Nouredine Slimani Based on the scientific sessions delivered during the study days. the participants recommend directing academic and research efforts toward recommendations included the following points:



### Recommendation of the study days

#### First: Recommendations Related to the Field of Animal Production

- Conducting statistical studies on diseases prevalent among animals in the region.
- Developing studies on appropriate feed rations for animals in the region.
- Strengthening research related to reproductive biotechnology.
- Carrying out morpho-biometric studies on local breeds.
- Investigating the impact of water salinity on animal production and health.
- Studying the feasibility of using plant production residues as alternative feed resources.
- Examining the spread of antibiotic resistance in animals.
- Analyzing local market needs for animal products.
- Assessing the condition of rangelands in the Oued Souf region.

#### Second: Recommendations Related to the Field of Plant Protection

- Conducting field studies to map the distribution areas of plant pests and diseases, with the aim of developing accurate maps and databases to guide control strategies.
- Studying the activity of active ingredients in chemical pesticides used against pests and evaluating their effectiveness under local conditions to ensure safe and efficient use.
- Conducting statistical studies on beneficial organisms used in biological control, while assessing their ability to reduce infestations and enhance ecological balance.
- Developing new biologically active agents for the control of pests and diseases, as environmentally friendly alternatives to conventional pesticides.
- Developing mechanisms for integrating integrated pest management approaches by establishing effective protocols that combine cultural, biological, and chemical control methods, thereby reducing environmental damage.



## 2. Honoring the Participants

All participants in the study days—including farmers, Professors, and organizing students—were honored in recognition of their active contributions and their role in ensuring the success of this scientific event.

## 3. Closing Address

In conclusion, Professor Abdelbasset Kaddour delivered the closing address, in which he expressed his sincere thanks and appreciation to all those involved in organizing the two study days, including supervisors, organizers, and participants, thereby officially declaring the conclusion of this scientific event.

