



REGINA

www.regina-ra.eu

Optional
Teaching
Methods for RA
course

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General Information

- The course on Regenerative Agriculture (RA) focuses on sustainable farming practices that enhance soil health, increase biodiversity, and promote ecosystem resilience.
- Topics covered over the course include soil health, crop rotation, cover cropping, agroforestry, and the use of natural fertilizers and pest control methods.

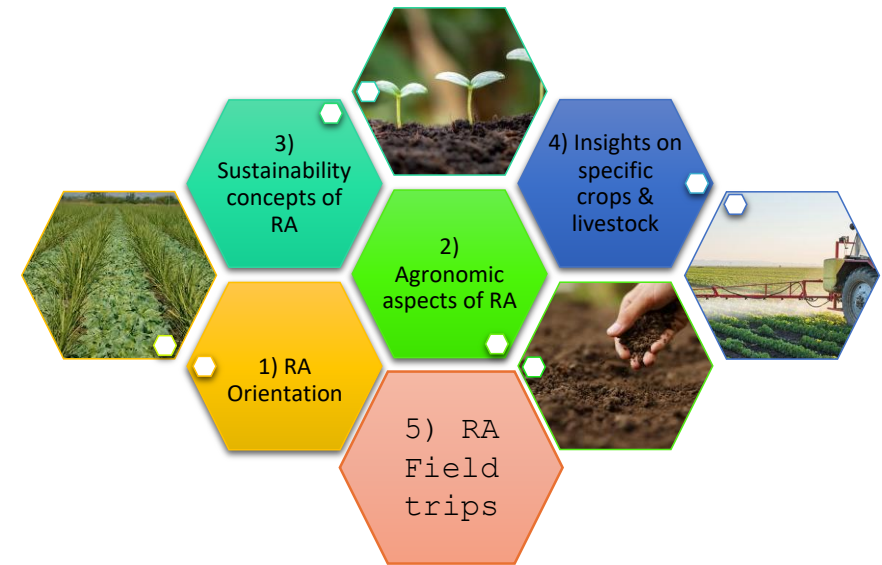


For whom is the course recommended?

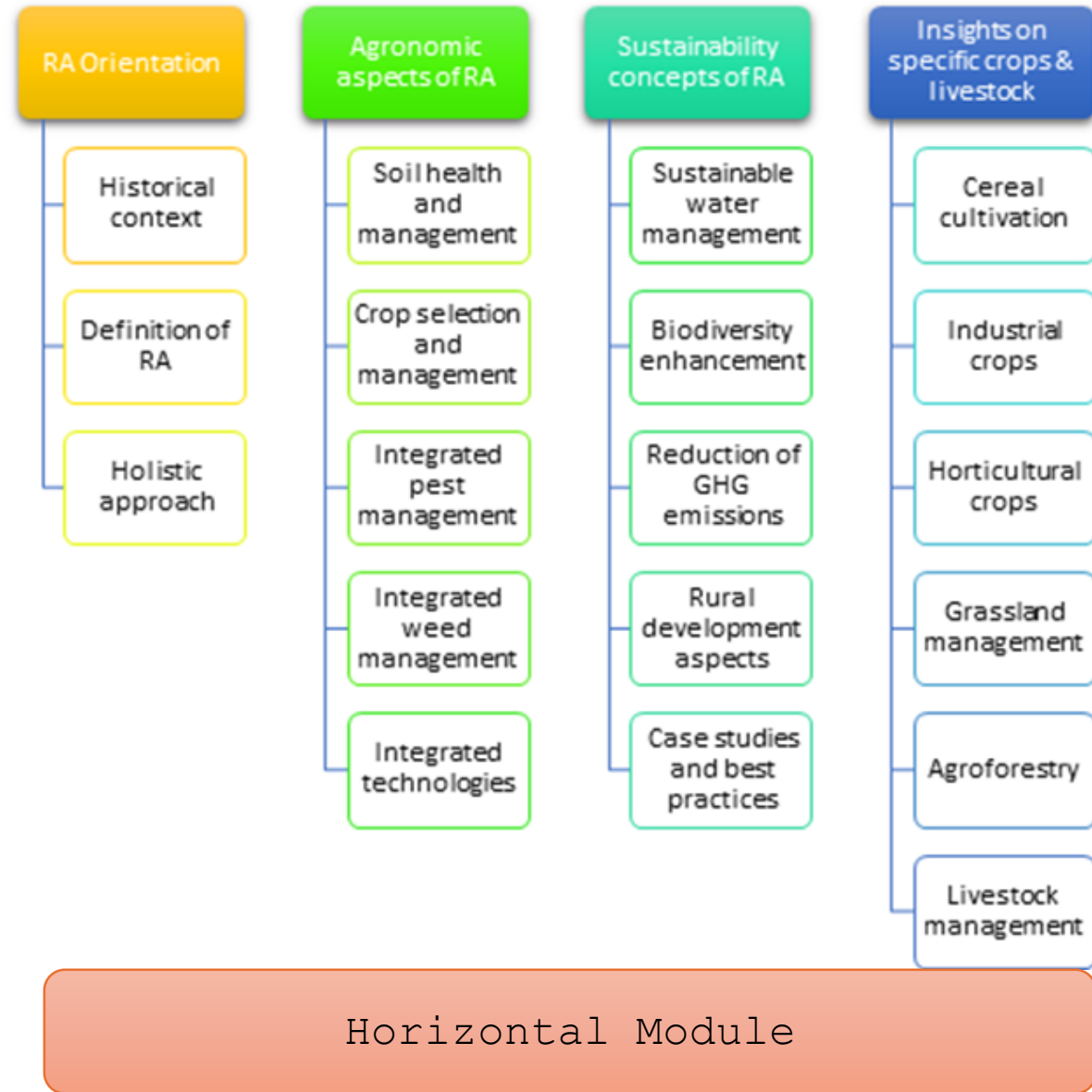
- In general, REGINA Course is essential for anyone interested in regenerative agriculture.
- It provides a strong foundation for understanding the principles and practices of Regenerative Agriculture and highlights the critical role that agriculture can play in creating a more sustainable and resilient future and land management.
- This course is an educational program designed to teach university students, secondary grade students, farmers and agriculture professionals.



How is the
REGINA
course
structured?



Course structure – Modules



Learning Objectives in Higher Education

UNDERSTANDING
AND APPLICATION
OF REGENERATIVE
AGRICULTURE (RA)

CRITICAL
EVALUATION OF
SOIL MANAGEMENT
PRACTICES

UNDERSTAND
THE PRINCIPLES OF
PLANT NUTRITION
AND NUTRIENT
MANAGEMENT


CROP STRUCTURE
PLANNING AND
CROP ROTATION

SUSTAINABLE
WATER MANAGEMENT
AND MOISTURE
CONSERVATION

ROLE OF
BIODIVERSITY AND
ITS MANAGEMENT
IN RA

REDUCING GHG
EMISSIONS

RA'S
CONTRIBUTION TO
RURAL
DEVELOPMENT



Learning Platforms in REGINA course

Learning
Management
Systems (LMS)
such as
Blackboard,
Moodle

Hybrid Learning
Platforms

Suggested
teaching
methods
for RA
course in
HE

- Frontal teaching
 - Directed discussion
 - Problem-based learning
 - Project-based learning
 - Cooperative group work
 - Competition
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- Jigsaw puzzle
 - Project work
 - Now - then – later
 - Group brainstorming
 - Work plan poster
 - Presentation
 - Mind map
 - Etc.

Types of Assessment Methods in REGINA course

Multiple-
Choice
Questions
(MCQs)

Essay-Based
Exams

Short-
Answer
Questions

Project-
Based
Assessments

Portfolios

Peer
Assessment

Self-
Assessment

Recommended class formats at each level of education

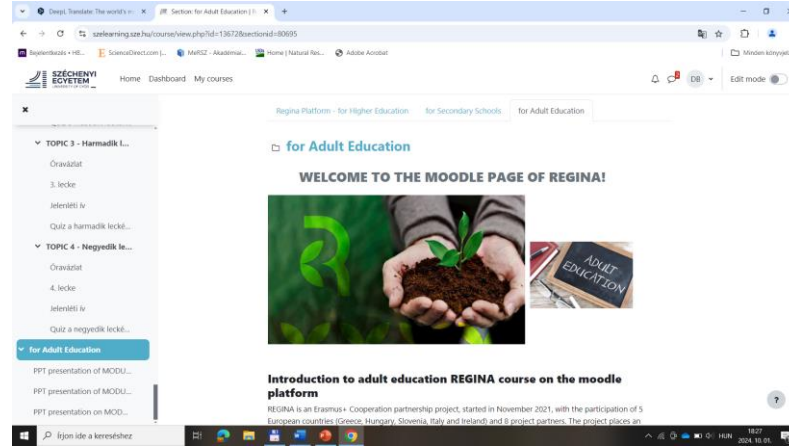
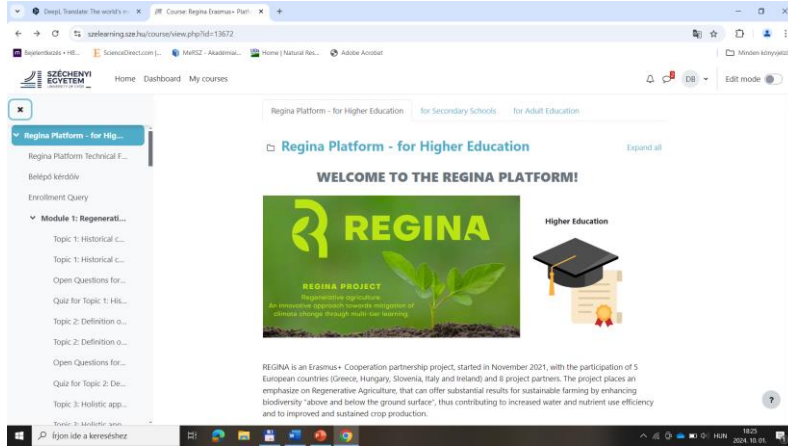
	Higher Education	Secondary Education	Adult Education
Lectures	😊😊😊	😊😊😊	😊
Seminars/Practicum	😊😊😊	😊😊😊	😊😊😊
Field trips	😊😊😊	😊😊😊	😊😊😊
Guided discussions	😊😊😊	😊	😊😊
Problem-based learning	😊😊😊	😊😊😊	😊😊😊
Project-based	😊😊😊	😊	—

Duration of the REGINA course


For
university
students: 14
weeks

For
secondary
school
students: 2-
4 weeks

For Farmers:
1 or 2 days



REGINA Platform




Module 2: Agronomic aspects of Regenerative Agriculture

1. The teacher introduces the topics using PowerPoint and/or video presentations.
 2. Since RA has already been defined in the first module, the discussion method - as a complementary means to frontal teaching - can also be used. The instructor uses guided, thought-provoking questions to encourage students to form opinions.
 3. It is advisable to form as many groups as many major topics were covered in the theoretical sessions and to build the project tasks around these.
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Module 2: Agronomic aspects of Regenerative Agriculture

4. The student groups are given a problem (e.g. poor water management due to structural degradation of soil), the outline of which has already been discussed during the frontal teaching.
 5. The groups look for and develop solutions to this particular problem.
 6. At the end of the presentation of each project, the groups may ask questions from the other students to get feedback on their understanding of what has been perceived from the presentation.
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Module 2: Agronomic aspects of Regenerative Agriculture

7. 10-question quiz
 8. The finished projects are evaluated by the teacher on the basis of the extent to which the answer/solution to the problem given in advance matches the RA guidelines.
 9. The students may also be involved in the evaluation, for example if the teacher organises a competition among the groups.
 10. The completion of the module takes about 3 weeks.
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Lesson plan - lecture

Lesson Topic: Soil Tillage Errors			Number of Students: All					
Duration (90 min)	Phases	Content	Objectives	Competencies	Applied Methods	Teacher's Activities	Student Activities	Materials and Equipment
2 min	Greeting Students	Greeting students and getting ready for the lesson	Making the students feel comfortable and welcome, starting the lesson	Communication skills	Coaching	Starting conversation, asking questions	Getting ready for the lesson, answering questions	no
3 min	Introduction	Introducing the topic: Today's topic is Soil Tillage Errors	Raising interest toward the topic	Acquisition of new knowledge, critical thinking	Frontal Teaching	Presenting the material	Taking notes, paying attention	PPT/video, projector
10 min	Phase 1 - Explore	Definition of soil tillage errors	Students learn about what soil tillage errors mean	Acquisition of new knowledge, critical thinking	Frontal Teaching	Presenting the material	Taking notes, paying attention	PPT/video, projector
10 min	Phase 2 - Learning	Types of soil tillage errors	Students get familiarised with the various types of soil tillage errors	Acquisition of new knowledge, critical thinking	Frontal Teaching	Presenting the material	Taking notes, paying attention	PPT/video, projector
10 min	Phase 2 - Learning	Possible consequences of errors (soil)	Students learn about the consequences of the soil related errors	Acquisition of new knowledge, critical thinking	Frontal Teaching	Presenting the material	Taking notes, paying attention	PPT/video, projector
10 min	Phase 2 - Learning	Possible consequences of errors (plant)	Students learn about the consequences of the plant related errors	Acquisition of new knowledge, critical thinking	Frontal Teaching	Presenting the material	Taking notes, paying attention	PPT/video, projector
10 min	Phase 2 - Learning	Possible consequences of errors (yield)	Students learn about the consequences of the yield related errors	Acquisition of new knowledge, critical thinking	Frontal Teaching	Presenting the material	Taking notes, paying attention	PPT/video, projector
15 min	Phase 2 - Learning	Techniques of avoiding errors	Students learn about how to avoid the errors	Acquisition of new knowledge, critical thinking	Frontal Teaching	Presenting the material	Taking notes, paying attention	PPT/video, projector
10 min	Phase 2 - Learning	Role of RA in conserving soil structure	Students learn about the role of RA in soil conservation	Acquisition of new knowledge, critical thinking	Frontal Teaching	Presenting the material	Taking notes, paying attention	PPT/video, projector
10 min	Phase 3 - Closure	Summarising the topic	Synthesize gained knowledge	Communication skills	Group Discussion	Ask and answer questions	Ask and answer questions, give their own ideas	no

Lesson plan – seminar/practicum

Lesson Topic: Soil Tillage Errors		Number of Students: max 20							
Duration (90 min)	Phases	Content	Objectives	Competencies	Applied Methods	Teacher's Activities	Student Activities	Materials and Equipment	Notes
2 min	Greeting Students	Greeting students and getting ready for the lesson	Making the students feel comfortable and welcome, starting the lesson	Communication skills	Coaching	Starting conversation, asking questions	Getting ready for the lesson, answering questions	no	
3 min	Introduction	Introducing the topic	Getting feedback on the lecture, clarifying problematic areas	Being able to express their uncertainties, communication skills	Conversation	Attentive listening and answering questions	Taking notes, paying attention, asking questions	no	
5 min	Phase 1 - Warm-up (Competition Task)	Collecting and describing the types of soil tillage errors	Students revise the definition of soil tillage errors and their types	Applying new knowledge, critical thinking, organizing ideas, communication skills	Co-operative Group Work (5 Students/group) Gamification	Giving instructions	Creating a detailed list of the errors and their characteristics	whiteboard/ laptop/ tablet	TASK: Each group collects all the possible problems and characterises them briefly. GAMIFICATION: The group carrying out the task the most precisely will gain 1 gamification point.
5 min	Phase 1 - Warm-up (Competition Task)	Presentation of the types of soil tillage errors	Students be able to organise their thoughts and present them	Improving presentation skills	Group Work (5 Students/group), Gamification	Attentive listening and giving feedback	Presenting their work	whiteboard/ laptop/ tablet	
5 min	Phase 2 - Research Work	Allocation of the task to the groups and giving instructions	Students fully understand the task	Communication skills, critical thinking	Coaching	Giving instructions	Taking notes, paying attention	projector, laptop, paper slips, bag	TASK: Step 1 Teacher makes one person from each group to choose a problem by drawing a piece of paper with the name of the problem from a bag. (Problems: soil compaction, dust formation, clod formation, soil cracking) Step 2 Each group collects practical examples (videos, pictures, descriptions) of the problem allocated to their group. Step 3 Applying their findings and the knowledge they gained in the lecture, they are required to make their own conclusions. Step 4 Students are required to develop and recommend solutions for their specified problem by implying techniques used in RA and traditional agriculture. Step 5 Students compile a PowerPoint presentation on their specific topic.
15 min	Phase 2 - Research Work	Collecting the characteristic features of the problems, their possible consequences	Students learn about and be able to realize the characteristic features and the effects of the problem	Acquisition of new knowledge, critical thinking, Interpersonal/teamwork skills, leadership skills, activating existing cognitive structures, organizing new information	Group Work (5 Students/group), Coaching, Conversation, Searching for information on the Internet, Gamification	Assisting the students, answering their questions if needed	Collecting information, Taking notes, Prioritizing information	laptop, tablet, mobile phone	
15 min	Phase 2 - Research Work	Compiling the content of the presentation	Students improve their prioritization skills (analyzing, categorizing) and presentation skills, learn how to assign a task to a peer, how to work together, improve their self awareness (strengths and weaknesses)	Communication skills - asking and answering politely, Critical thinking, Prioritization skills, Decision making skills, Leadership skills	Group Work (5 Students/group), Coaching, Planning and Structuring, Conversation, Gamification	Assisting the students, answering their questions if needed	Taking notes, paying attention, asking and answering questions, prioritize the collected information, compile the content of the presentation	laptop, tablet, mobile phone	
10 min	Phase 2 - Research Work	Creating the presentation	Students improve their communication skills, prioritization skills, decision making skills and their aesthetic skills	Applying existing knowledge, critical thinking, Decision making, Communication/Interpersonal skills	Group Work (5 Students/group), Coaching, Planning and Structuring, Conversation, Gamification	Assisting the students, answering their questions if needed	Taking notes, paying attention	laptop, tablet, mobile phone	
20 min	Phase 3 - Presentation	Delivering the presentation	Students be able to express their findings and ideas effectively and with clarity	Oral presentations skills, controlling body language, managing nervousness, projecting confidence	Group Work (5 Students/group), Presentation, Gamification	Attentive listening, Evaluates Groups' presentation (content and layout), Decides ranking of the groups	Presenting, Taking notes, paying attention, Take constructive criticism, Vote for the best presentation	PowerPoint, projector, laptop	GAMIFICATION: The groups gain gamification points according to their placement. (1st/best presentation - 5 points), 2nd - 4 points etc.) The groups also vote for the best presentation, the winner gets 1 extra gamification points.
10 min	Phase 4 - Closure	Summarising the topic	Synthesize gained knowledge	Communication skills	Group Discussion	Ask and answer questions	Ask and answer questions, give their own ideas	PowerPoint, projector, laptop	

Lesson plan - field trip

Lesson topic: Field trip		max 20 student	4 group	5 student/group					
Duration (360 min)	Phases	Content	Objectives	Competencies	Applied Methods	Teacher's Activities	Student Activities	Material and Equipment	Notes
2 min	Greeting Students	Greeting students and getting ready for the field trip	Making the students feel comfortable and welcome, starting the field trip	Communication skills	Coaching	Starting conversation, asking questions	Getting ready for the field trip, asking and answering questions	no	
3 min	Introduction	Introducing the topic: Field trip	Raising interest toward the topic	Acquisition of new knowledge	Frontal Teaching	Presenting the material	Taking notes, paying attention	no	
max 60 min	Phase 1 - Travelling	Travelling	Getting to the farm	Communication skills, People skills	Coaching, Conversation	Travelling, Engaging with the students	Travelling, Engaging with the teacher and the peers	coach, car, train, bicycle	
30 min	Phase 2 - Planning	Arriving at the venue of the field trip. A short presentation of the farm by the owner. Distribution of the form containing interview questions to the Students. Obtaining permission to take photographs from the owner of the farm.	Students get familiarised with the farm and the task	Acquisition of new knowledge, Interpretation skills, Communication skills	Frontal Teaching	Distributing the task and the interview questions	Taking notes, paying attention, clarifying misunderstandings	laptop, notebook	Questions for: Group 1: Size of the farm (ha). What is/are the main products of the farm? Can you describe the RA practices you use in the farm? Group 2: What were the initial steps of launching RA? Did you/the farmer receive any training about RA? Who provided the training? Are you/the farmer generally satisfied with applying RA techniques? Group 3: Benefits? Obstacles & difficulties? How have you overcome the difficulties? Group 4: Does the farm implement any regenerative agriculture (RA) practices? Do they feel that they have thorough knowledge on RA? Or would they like to know more about RA? F or how long have you been using RA practices? F or the photo documentation, each group is required to take a minimum of 5 photos.
60 min	Phase 2 - Group work	Make the interview with the farmer 15 min/group	Students be able to ask their questions in regard their topic, maintain conversation with an expert in the field and to assess whether they received a relevant answer to their questions.	Asking relevant questions, prioritization skills, critical thinking, teamwork, decision making skills	Coaching, Guided Conversation, Attentive listening	Assists the students when they require help	Taking notes, paying attention, sharing ideas, brainstorming with their group members, start and maintain conversation with the farmer	laptop, notebook, mobile phone	
45 min	Phase 2 - Group work	Guided tour in the farm, taking photos	To improve students' ability to concentrate, capacity to identify key points and reaction time	Communication skills, ability to concentrate	Presentation, making photo documentation	Actively listens, assists students when needed	Taking notes and photos, paying attention, collecting ideas and questions	notebook, mobile phone	
45 min	Phase 2 - Group work	Groups making their brochures on the farm	Students be able to create a short, informative and eye-catching brochure applying the program called Publisher.	Communication skills, computer skills, organisational skills, prioritizational skills, teamwork	Coaching, Conversation techniques, Co-operative group work	Actively listens, assists the students when needed	Making their brochure presenting the farm. The brochure is illustrated with texts and photos and created in Publisher.	PPT,laptop, notebook, cell phone	
10 min	Phase 2 - Relax	Getting ready for leaving	Students getting ready for leaving the farm.	no	Coaching	Assists the students when they require help	Packing their belongings and getting ready for the journey back.	no	
max 60 min	Phase 2 - Travel	Travelling back	Coming back to the University	Communication skills, People skills	Coaching	Converses with Students	Starting and maintain conversations, exchanging their experiences	bus, car, train, bicycle	
45 min	Phase 3 - Closure	Presenting the brochures, their discussion Evaluation	Students be able to synthesize recently gained knowledge and present its key points in a professional way	Communication skills, Presentation skills, Expressing your ideas, Controlling body language, Managing nervousness	Group Presentation, Group Discussion, Gamification	Asks and answers questions, Evaluates presentations	Present their brochures, Ask and answer questions, Express their own ideas	PPT, projector	GAMIFICATION: The groups gain gamification points according to their placement. (1st/best presentation - 5 points), 2nd - 4 points etc.) The groups also vote for the best presentation, the winner gets 1 extra gamification points.

Lesson plan supplement

Materials and Equipment
no
PPT/video, projector
PPT/video, projector

In the Materials and Equipment column of the lesson plans, apart from the task sheets/materials and technical equipment used during the lesson, the ppt slides presented to the Students are to be inserted.

The sample lesson plans created for each type of lesson (lectures seminars and field trips) need to be used and adapted to the actual lesson satisfying the preferences of the Teacher and the particularities of the content of the lesson.

Useful Methods of Introducing the Good Practices for RA Experts, Farmers and People Interested

Workshops & Hands-On Demonstrations

Peer-to-Peer Learning & Farmer Networks

Field Days & Farm Visits

Online Webinars & Virtual Learning Platforms


Community Gardens & Pilot Projects

Storytelling & Testimonials

Collaborations with Local Businesses

Farmers' Markets & Local Food Initiatives

Citizen Science Projects



By completing the course,
university students, secondary
school students, farmers:

- Can understand and correctly apply the basic concepts related to Regenerative Agriculture.
 - Understand the concepts of Regenerative Agriculture and can critically evaluate different soil management practices and methods.
 - Can identify steps towards sustainable water management, to apply guidelines for soil cultivation and crop structure to conserve moisture.
 - Know and understand the role of biodiversity growth.
 - Understand the role of RA in reducing GHG emissions.
 - Understand the role of RA in rural development.
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Thank you for
your attention!