

Agricultura Sostenible en México y Estados Unidos

<p>Proficiency Level of Tasks in This Unit: Intermediate low <u>Novice Low/ Mid/ High</u> <u>Intermediate Low/ Mid/ High</u> Used for levels 4, 5, AP</p>	
<p>Theme or Topic (s): Agricultura sostenible (Sustainable Agriculture)</p>	
<p>Essential Question (s): What crops are important culturally in the United States and in Mexico? How have trade policies affected small farmers in Mexico?</p> <p>What sustainable agriculture strategies are traditionally implemented on small family farms in Mexico? How can we best assure that all people are sufficiently nourished while still being good stewards of the environment?</p>	
<p>Learning Target for Intercultural Communication</p> <ul style="list-style-type: none"> • Culture: <i>Intercultural</i> Can-Do Statements • (Optional) Communication: <i>Interpretive, Interpersonal and Presentational</i> Can-Do Statements 	<p>Investigate: In my own and other cultures I can make comparisons between products and practices to help me understand perspectives.</p> <p>Interpretive: I can identify the topic and related information from simple sentences in short informational texts.</p>
<p>Standards and Competencies NOTE: You do not need to do all of these in this one lesson</p> <p>Grade levels: K-12 6-12 9-12</p>	<p>Ohio 9-12 World Language Standards:</p> <p>Interpretive: Competency 1: Derive meaning from messages and texts using listening, reading and viewing strategies.</p> <ul style="list-style-type: none"> a. Focus on the overall meaning of the message or text to avoid stumbling on unknown words and expressions. e. Use knowledge of the situation, the purpose of communication or context cues to understand messages. <p>Competency 3: Comprehend and interpret information in authentic messages and informational text</p> <ul style="list-style-type: none"> b. Answer questions about authentic messages and informational texts. f. Draw conclusions and make inferences based on the ideas and details

derived from authentic messages and informational texts.

Interpersonal:

Competency 3: Express preferences, feelings, emotions and opinions about familiar and some unfamiliar topics.

- c. Exchange, compare and support preferences and opinions about personal, academic, professional and contemporary or historical topics.

Presentational:

Competency 1: Convey meaning using writing processes and presentation strategies

- c. Produce initial drafts/presentations while keeping audience, context and purpose in mind.
- g. Use appropriate techniques to cite sources and avoid plagiarism.

Competency 2: Present information, concepts and viewpoints on familiar and some unfamiliar topics from across disciplines.

- a. Create and present lists and classifications.
- i. Propose solutions to a range of issues or problems.

Intercultural:

Competency 1: Analyze and describe relationships among products, practices and perspectives and compare them across cultures.

- b. Identify, examine and demonstrate how people meet their basic needs in different ways.
- c. Identify, examine and compare products, practices and perspectives of the U.S. and target cultures.
- d. Identify, compare and show factors that affect the availability and affordability of products and services across cultures.

Formative Practice and Assessments: *How/when will I check for understanding (interpretive, interpersonal, presentational, culture, vocab, grammar) and guide my instruction to ensure that students are progressing toward the learning outcomes for the unit? (IE activities, quizzes, bell ringers, games, exit tickets, etc.)*

ATTACH ALL MATERIALS AT END OF LESSON PLAN

- Journal entry about crops/foods that are meaningful in student's own culture (presentational)
- Story retell on paper or on Flipgrid to show comprehension of the legend
- Case study response (interpretive)
- Illustrations from listen and draw activities (interpretive)
- hula hoop venn diagram (interpretive)
- Sustainable agriculture posters (presentational, intercultural)

Pre-Assessment of Prior Knowledge: *How will students show what they already know about the topic of this unit? What activities will be used?*

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- Students will show what they know about foods in their own cultures through the journal entry at the beginning of the lesson.
- Students will show what they know about sustainable agriculture through a think, pair, share brainstorming activity to create a working definition of sustainable agriculture for use during the lesson.

Activities *(in class, in the target language)* / **Instructional Strategies and Resources:** *Overview of helpful instructional strategies for this unit (tech integration, native/heritage speakers, students with disabilities, gifted students, career connections, etc.)*

NOTE: What audio, video or text will we use throughout this unit for practice?

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Day 1:

- Discussion in Spanish of crops/foods that are meaningful in our cultures/families: I will speak in the TL about asparagus, which my family has always grown and used seasonally as part of our meals.
- Students will write a journal entry: ¿Qué cultivos o comidas son importantes en la cultura de tu familia. Explica cómo estos productos son una parte integral de tu dieta. Escribe 5-7 oraciones.
If students struggle with writing, consider providing sentence frames to aid those who are struggling or write your personal story on the board to serve as a model. This would facilitate repetition of unfamiliar structures as well.
- Orally discuss students' ideas in the target language and chart common answers on the board to gain repetitions of the items that students present.

Day 2:

- Story listening in Spanish: "Leyenda del maíz".
<https://www.mundoprimaria.com/mitos-y-leyendas-para-ninos/la-leyenda-del-maiz> The instructor will tell the story of the legend, *using circling strategies as well as illustration to support comprehension*. If necessary for online learning, this can be done on a video that students can watch from home. *Students may take notes on key phrases, characters, etc. as the instructor narrates the story* but ideally will be fully engaged in the story. The instructor should frequently review and should provide frequent, slow repetitions of the key elements of the story in the target language to promote understanding.
- Hand out pre-copied images of scenes from the story that match the illustrations on the board. Allow students to work in pairs to retell the story in simple Spanish. *As an alternative, play the elaboration game. One student says a simple sentence about one of the images, the other student adds a detail, and they continue to do this until they have exhausted their knowledge of that image. They could write their final sentence about each image as an assessment or:*
If time, have students retell the story on Flipgrid using the illustrations and their notes as supports.

Day 3:

- The class will learn more about corn, which is very important to the history, culture and diet of Mexico. They will read an infographic in Spanish about corn in Mexico and answer the T/F questions. https://docs.google.com/document/d/1MyQooTJ_D41nsPX3vsRdqCrcscuhYaUfcyHp_y_8-cA/edit?usp=sharing
- Work with students in the target language to imagine how a small family farm in Mexico might function: The farmer would grow their own corn using traditional methods, save the best seeds and continue growing the traditional varieties year after year. Consider the benefits: maintaining crop diversity and growing varieties that have proven to be successful in the specific area/climate. The farmer doesn't have to buy the seed each year. They already have it. They can use traditional farming methods and soil inputs that take care of the land and don't deplete its nutrients. Discuss the trade-off of lower productivity for soil health. Compare this to large-scale agriculture, which can produce more per acre with increased chemical inputs. Large-scale agriculture relies heavily on monoculture agriculture: producing one variety of one crop. There is increased productivity and decreased soil health. This can be done as a brief 5 minute presentation in the target language, using repetition and questions to check for comprehension. [This document with discussion points and suggested vocabulary](#) can be used as a starting point, though one might also consider a brainstorming session about students' prior knowledge of large and small-scale agriculture to begin this discussion.
- Write and discuss: As students call out information in Spanish about what they have just heard, put the main ideas of what has been discussed on the board.
- In their journals, students should take note of the benefits of this type of farming. *This may mean copying the write and discuss on the board for less advanced students or summarizing the day's learning and adding the student's own ideas for students needing an extra challenge.*

Day 4:

- [Use this document for useful vocabulary for today's discussions.](#)
- In English or in Spanish, introduce a brief description of NAFTA. Explain how the introduction of cheap subsidized corn from the United States disrupted the economy for small family farms. They could not produce their traditional crops cheaply enough to compete against the cheaper imported corn. *Use illustrations and simple language to support understanding. Write cognates on the board.*
- Article for reference: <https://thecounter.org/border-crisis-immigration-mexican-corn-nafta/>
- Consider the consequences of NAFTA on small farmers. How is the cheaper, subsidized corn produced? (Mechanized farms with tractors for applying chemical inputs). Discuss as a class in Spanish. *If students are struggling with production, ask either/or and yes/no questions. Provide lots of repetition. Put key phrases on the board for support of the discussion.*
- Case study: Read about the experience of one family. <https://docs.google.com/document/d/1NHwPmoXMXy-svjBXrSAYvp1JeIMaZ7pS32OqeYOsAf8/edit?usp=sharing>

Day 5:

- Using think, pair, share strategies, create a working definition of sustainable agriculture. *Have students contribute ideas in their pairs or small groups for scaffolding of all learners*, then compose it into one definition on the board. Everyone should copy this down.
- Sustainable agriculture strategy: [milpa listen and draw activity](#)
- The instructor will read the description of the milpa strategy in simple Spanish, putting key vocabulary on the board for support. As the instructor reads the description, slowly and with multiple repetitions, students will illustrate the strategy.
- *If students seem to be struggling, a whole-class illustration on the board by student volunteers could allow students to check their comprehension without attaching a grade.*
- Journal entry: ¿Por qué piensas que el uso de la milpa sería mejor para el granjero y para el medio ambiente? ¿Qué beneficios tiene?

Day 6:

- Sustainable protein: Read a [chart about sustainable protein options](#).
- Discuss as a class: what would be the benefits of these types of protein over our traditional protein sources?
 - Journal entry in Spanish: Why will it be important in the future to have diverse, sustainable protein options?

Day 7:

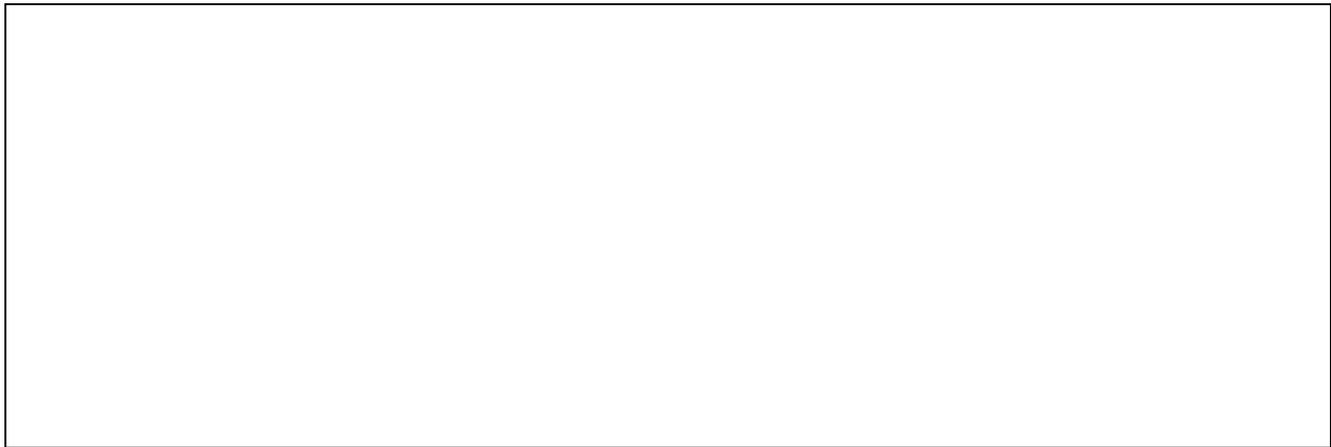
- Large scale farms and small scale farms [Venn diagram activity with prepared Spanish statements](#): Students will work in pairs to read and interpret each characteristic statement. Then they will place it in the Venn diagram based on their knowledge of the benefits and limitations of small and large scale farms. *If a student is particularly advanced and does not need additional scaffolding from a partner, they may work alone on this activity.*
- Review our definition of sustainable agriculture. *Write it on the board again and check for understanding, even do a choral translation to verify.*

Closing/Reflection Activity: *How are students engaging with ideas from another culture? What it means for them? (in the target language)*

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As a final reflection, students should propose a sustainable agricultural system, potentially making use of both large and small scale agriculture, that will feed everyone, take care of the environment and maintain traditional crops/agricultural practices. They will create posters of their proposed agricultural systems to share with the class.

[Possible rubric](#)



References

Leyenda del maíz

<https://www.mundoprimaria.com/mitos-y-leyendas-para-ninos/la-leyenda-del-maiz>

Infografía del maíz

<https://blog.seccionamarilla.com.mx/infografia-del-maiz/>

NAFTA

<https://thecounter.org/border-crisis-immigration-mexican-corn-nafta/>

Case study:

<https://cronkite.asu.edu/buffett/chiapas/nafta-an-empty-basket-for-farmers-in-southern-mexico/>

<https://www.nytimes.com/roomfordebate/2013/11/24/what-weve-learned-from-nafta/under-nafta-mexico-suffered-and-the-united-states-felt-its-pain>

La milpa:

<https://masdemx.com/2017/03/milpa-dieta-siembra-mexico-cultura/>

chapulines:

<https://www.edibleinsects.com/insect-nutrition-information/>

cuy:

<http://www.fao.org/3/v6200t/v6200T05.htm>

<http://katty-cuyes.blogspot.com/2012/09/crianza-de-cuyes.html>

chicatanas:

<https://heraldodemexico.com.mx/gastrolab/chicatanas-el-tesoro-de-oaxaca-para-el-mundo/>

<http://www.socmexent.org/entomologia/revista/2016/FTBM/Em%20770-774.pdf>

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conejo:

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