

Business and Marketing for Small Scale Beginning and New American Specialty Crop Farmers Curriculum Guidebook

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Introduction

This curriculum is intended to educate beginning and New American farmers about business and marketing basics. The lesson plans and activities included in this curriculum provide foundational building blocks of knowledge to farmers who are just starting out as new business owners, in order to help them develop skills that can be built upon as their farms grow. Lesson plans for seven core topics are included in this curriculum. The slides and content were developed for a target audience with a wide and varied range of English literacy skills and slides intentionally include more images than text.

Production Planning Lesson Plan

Topic: Production Planning	Duration: 2-3 hours, depending on interpretation needs
Objective: Students will learn what a production plan is, why it is needed, and how to write one for their farm business.	Assessment: <i>Students will demonstrate mastery of the objective by...</i>
1. Define a production plan and identify the benefits for farm businesses.	1. Discussing/brainstorming possible benefits in lecture.
2. Establish the foundation of production planning as goal setting.	2. Students will practice goal setting for their farm as an in class activity.
3. Introduce and explain the steps necessary to taking goals and turning them into a plan on paper.	3. Students will follow along and participate in an example in class for two different crops.
Materials: • Example production plan (if available) • Production Planning Worksheet (at end of lesson plan) • Farmer Templates • Production planning Presentation • Production Planning Presentation – Arabic Version	
Procedure: 1. Ask students to answer the question ‘what is a production plan’? Record answers on a whiteboard or large tear pad. Slide 2. 2. Explain what a production plan is and why it is necessary. Discuss in class if students have other ideas on how a production plan could benefit their farm beyond what is suggested on the slides. Slides 3-6 3. Discuss goal setting as a foundation to production planning. Discuss how to set goals for success, primarily focusing on a small number of goals with an achievable scope vs. Lots of lofty goals. Slides 7-9. 4. Discuss budgeting as another foundational component of production planning. Review the basics of budgeting and discuss why budgeting is important. Slide 9-12. 5. Review the pros and cons of different sales avenues as it relates to production planning goals and budget. Slide 13.	

6. Have students think about and set a few goals for their farm. Share in class as a group what those goals are. 5-10 min. Slide 14
7. Discuss the steps to planning, working through two crop examples in class (parsley and okra). Have students give input as appropriate. Slides 15-27
 - o Deciding what to grow – discuss different possible methods of decision making, example uses crops a grocery store is requesting.
 - o Deciding how much to grow
 - o Determining when you can harvest or need to harvest
 - o Determining when you should plant and/or seed start
 - o Determining how much bed space is needed to grow for the sales goal you are planning for.
 - o Estimating yields.
 - o Taking your plan and putting it in a spreadsheet or on a calendar.
8. Send students home with the production planning worksheet and templates. (28) Explain how to use the templates (during class each step or at the end of the session). Have them complete the worksheet and write their production plan before their next class.

References

Production Planning for your Small Farm – original presentation from Green School Farm

[Crop planning users guide/NIFTI module](#)

Comments:

Production Planning Worksheet

1. What are 2 to 3 goals you have for your farm this year? Think about things like how much you want to produce, how much total you sell, and your profits.
2. What farm related expenses and income do you expect for the season? Think about all the things that go into your production, like materials costs, rent, and your time.

3. What markets are you planning for? What produce are you growing for them?

4. Fill out the crop planning worksheet!

Marketing Lesson Plan

Objective: Students will learn about principles and strategies of marketing, as well as developing relationships with buyers.	Assessment: <i>Students will demonstrate mastery of the objective by...</i>
1. Define marketing.	1. Students will apply their understanding of this concept in later activities.
2. Examine and explain different sales avenues available to farmers, the pros and cons of each, and how different markets shape a farm.	2. Students will work individually and in small groups to reflect, discuss, and apply the concepts through prompted questions. Activity 1.
3. Define market research and establish this as the basis of understanding a market.	3. Students will apply their understanding of this concept in later activities.
4. Introduce and explain basic practices to establish and build relationships for each type of market.	4. Students will work in small groups to build their own fresh sheet and practice pitching their product with potential buyers of different identities.
5. Define advertising and review different methods for farm businesses to accomplish this.	5. Students will work in small groups to reflect, discuss, and apply the concepts through prompted questions.
Materials: • Discussion prompt worksheet (at the end of this lesson plan) • Nametags or table tents/cards for freshsheet pitch activity • Markets and Marketing Presentation • Markets and Marketing Presentation – Arabic Version	
Procedure: 1. Open class by having students answer the questions on slide 2. 2. Define marketing (slides 3-4). Student input can be gathered during slide 3 before moving into the definition. 3. Introduce each basic avenue of sale and explain how each works. (slides 5-13). 4. Take a moment to ask students what markets might exist but are untapped yet in their local community (slide 14). Ask them to think about how they might break into them and discuss as a group. Establish that an important part of marketing is growth and thinking about the future, thinking about opportunity outside of traditional markets is important.	

5. Compare and contrast each sales avenue, including the pros & cons. Slides 15-18.
6. Discuss how to choose which markets are right for your farm by examining how your markets shape your farms production, equipment/infrastructure needs, time/labor management, profitability. Slides 19-28.
7. Have students work individually to answer the questions on the 'what is your context slide'. Break into small groups to discuss each individuals context. Slide 29.
8. Have students stay in small groups to answer prompt questions on their in class worksheet related to sales avenues and their farm. Slide 29
9. **BREAK TIME**
10. Define market research and discuss its' different components.
 - o Market analysis (slide 31)
 - o Cost analysis & Price Setting (slides 32-33)
 - o Customer Identity (slide 34)
 - o Customer Journey (slides 35 –37)
 - o Best practices for establish and building relationships with buyers (slides 37-39)
11. Have students work individually to fill out their 'freshsheet' sections on their class worksheets. (slide 40)
12. **BREAK TIME**
13. Discuss advertising strategies for farmers, with focus on Google Business Pages, Google Voice app, creating a website, using social media, and print media. (Slides 41-50).
14. Have students break into small groups to answer prompt questions on their in-class worksheets related to advertising. (slide 51)
15. Return to the full group for final questions or reflections.

References:

[Choosing your market presentation](#)

Kelly's Presentations/classes + video recording in Crops Canva account

Comments: This class could be taught in smaller sub-units as desired or needed. If teaching the entire lesson plan, build in breaks. Suggest at least 2 15 minute breaks.

Small Group Activity: Pitch your products to potential buyers!

1. Have each person in the group pick and assume an identity (restaurant/chef buyer, produce department manager, farmers market customer, CSA member, farmer).
2. 'Farmers' will use their freshsheet activity as reference to sell their product to each customer.
3. In the conversation make sure to:
 - a. Introduce yourselves

- b. Farmers – pitch your product. Convince the buyer that they need your product on their shelves!
 - c. Gain an understanding of both of your needs in regards to ordering, quantity/quality of products, delivery, and invoicing.
 - d. Farmers - support the buyer in their assessment and decision making process
 - e. Make a plan for follow up
- 4. Flip roles, so each member of the group has a chance to play the buyer and the farmer.

Markets and Marketing Worksheet

Personal Reflection:

What products does your farm produce? If you are not farming yet, what do you want to grow and sell?

Where do you sell your produce or where do you want to sell your produce?

What are your current customer relationships like? If you are not farming yet, how do you want your customer relationships to be like?

How are you currently advertising your products?

Fresh Sheet Activity:

Who are you?	
What is your farm's goal or mission statement?	
What products do you offer?	
What are your prices for each product?	
What is the season for when each product is available?	
How do buyers order?	
How can buyers contact you?	

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Activity reflection:

Did you make a sale?

What was your experience like as a farmer?

What was your experience like as a buyer?

What went well during your conversation and what could have been improved?

Advertising Personal Reflection:

How do you currently advertise your products?

What skills support your advertising strategy? What skills do you need to grow or outsource? What skills do you have that are untapped?

Advertising Group Reflection:

Discuss the answers to the personal reflection questions as a group. Collect and compare your answers to the questions with others.

What advertising strategies have worked well for you?

What advertising strategies were hard to maintain or didn't work very well? How could that have been improved?

Are there any resources your group discussed that would help you in your advertising journey?

ورقة عمل الأسواق والتسويق

انعكاس شخصي:

ما هي المنتجات التي تنتجها مزرعتك؟ إذا لم تكن تزرع بعد ، فماذا تريد أن تنمو وتبيع؟

أين تباع منتجاتك أو أين تريد بيع منتجاتك؟

كيف تبدو علاقاتك الحالية مع العملاء؟ إذا لم تكن تزرع بعد ، فكيف تريد أن تكون علاقاتك مع العملاء؟

كيف تعلن عن منتجاتك حالياً؟

نشاط الورقة الطازجة:

من أنت؟؟	
ما هو هدف مزرعتك أو بيان مهمتها؟	
ما هي المنتجات التي تقدمونها؟	
ما هي أسعارك لكل منتج؟	
ما هو الموسم الذي يتوفر فيه كل منتج؟	
كيف يطلب المشترون؟	
كيف يمكن للمشتريين الاتصال بك؟	

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نشاط المجموعة الصغيرة: اعرض منتجاتك على المشتريين المحتملين!

1. اطلب من كل شخص في المجموعة اختيار هوية وتوليها (مشتري مطعم / طاه ، مدير قسم الإنتاج ، عميل سوق المزارعين ، عضو CSA ، مزارع).
2. سيستخدم "المزارعون" نشاطهم الطازج كمرجع لبيع منتجاتهم لكل عميل.
3. في المحادثة ، تأكد من:
 1. قدموا أنفسكم
 2. المزارعون - عرض منتجك. أقنع المشتري بأنه بحاجة إلى منتجك على أرففه!
 3. اكتسب فهما لاحتياجاتك فيما يتعلق بالطلب وكمية / جودة المنتجات والتسليم والفواتير.
 4. المزارعون - دعم المشتري في عملية التقييم واتخاذ القرار
 5. ضع خطة للمتابعة
4. اقلب الأدوار ، بحيث يكون لكل عضو في المجموعة فرصة للعب دور المشتري والمزارع.

انعكاس النشاط:

هل قمت بعملية بيع؟

كيف كانت تجربتك كمزارع؟

كيف كانت تجربتك كمشتري؟

ما الذي سار على ما يرام أثناء محادثتك وما الذي كان يمكن تحسينه؟

الإعلان انعكاس شخصي:

كيف تعلن عن منتجاتك حالياً؟

ما هي المهارات التي تدعم استراتيجيتك الإعلانية؟ ما هي المهارات التي تحتاجها للنمو أو الاستعانة بمصادر خارجية؟ ما هي المهارات التي لديك والتي لم يتم استغلالها؟

انعكاس المجموعة الإعلانية:

ناقش إجابات أسئلة التفكير الشخصي كمجموعة. اجمع وقارن إجاباتك على الأسئلة مع الآخرين.

ما هي استراتيجيات الإعلان التي نجحت بشكل جيد بالنسبة لك؟

ما هي الاستراتيجيات الإعلانية التي يصعب الحفاظ عليها أو لم تعمل بشكل جيد؟ كيف يمكن تحسين ذلك؟

Finance Management & Accounting Lesson Plan

Topic: Finance Management & Accounting	Duration: 2-3 hours, depending on interpretation needs
Objective: Students will learn principles of responsible finance management and accounting.	Assessment: <i>Students will demonstrate mastery of the objective by...</i>
1. Establish checking versus savings accounts, why each is important, and what each is for. Personal vs. Business accounts will be discussed.	1. Establishing separate personal and business banking accounts for their farms as homework from class.
2. Introduce bookkeeping and recordkeeping basics. Establish why bookkeeping and recordkeeping is important for farmers.	2. Students will participate in income and expense tracking activity during class.
3. Introduce budgeting and explain how to write a budget.	3. Students will have time during class to start writing their budget using their own templates or a provided template.
4. Discuss loans and how to apply for a small business or farm loan.	4. Participate in discussion around and ask questions about slides.
Materials: • Farmer Templates • Play money • Whiteboard/dry erase markers • Receipt examples • Finance Management & Accounting Presentation • Finance Management & Accounting Presentation – Arabic Version	
Procedure: 1. Establish what each of the following types of bank accounts is and why they are necessary, with focus on the importance of and reasons for having different accounts for personal and business finances. (slides 4-5) - o Checking - o Savings - o Personal - o Business 2. Assign students homework of opening a business checking and savings account if they do not already have them. Provide some options of good banks they can go to to do this, and	

describe the process of opening a new account, including anything they will need to prepare or bring to do so. Examples of paperwork specific to local banks in the area can be shown. (Slide 5)

3. Define bookkeeping and recordkeeping. Establish why tracking money is important for a small farm.
4. Explain and cover different options for bookkeeping including tracking on paper, with a software or app, or paying a professional to do bookkeeping for you. Generate discussion in class on the pros and cons of each option. Provide examples of different software and tiers of software for accounting.
5. Define cash based accounting vs. Accrual based accounting. Lead the class in an example scenario to illustrate and practice cash based vs. Accrual based accounting. Establish accrual based accounting as a more reliable way to measure a businesses financial health.
 - o Provide students with play or real money to use during the activity as well as receipts for a supply, an invoice, a bill. See provided templates in the lesson plan.
 - o Group students into two (or more) groups depending on number of students and number of languages spoken. Have an even number of cash based vs. Accrual based accounting groups.
 - o Have students work together in groups to practice their assigned accounting method. Provide them a starting balance of 300.
 - o Hand each group a receipt for supplies their farm purchased at a local store. Both accrual and cash will record in the table, say for a value of \$100.
 - o Then, hand each group an invoice for produce sold. This represents vegetable sales, say for a value of \$200. Note the due date on the invoice. Accrual based accounting will record the payment, and cash based will not.
 - o Then, issue each group a bill for water, say for a value of \$100. Note the due date on the bill. Accrual based accounting will record the payment, and cash based will not.
 - o Have each group total their month.
 - o Finally, issue each group a surprise expense for tractor repair of \$150. Have each group record.
 - o Have each group explain whether or not they have money to pay for the repair and discuss as a group the pros and cons of each accounting method.
6. Define and explain budgeting. Examine why and when to write a budget.
 - o Activity: Have farmers use the provided template in class to start working on their budget for the year.
7. Explain and discuss loans using slides. Facilitate discussion about the pros and cons of loans and when to utilize this option.

References

Finance Management and Accounting – original presentation from Kross Consulting

Bookkeeping for Farmers -

https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nerme2324_trackmultiplechannels_nov13.pdf

Budgeting & Recordkeeping Module - <https://nesfp.nutrition.tufts.edu/resources/financial-literacy-budgeting-and-record-keeping>

Micro-producer academy Module - <https://nesfp.nutrition.tufts.edu/resources/micro-producer-academy-budgeting>

Comments: This class is timed best in December or January, when farmers are preparing for the coming season.

Suggest inviting students to bring their budget and books to class for in class activities and for reference when answering their questions.

Farm Recordkeeping Lesson Plan

Topic: Farm Recordkeeping	Duration: 1-2 hours, depending on interpretation needs
Objective: Students will learn what recordkeeping is, why it is necessary, and specific records recommended to keep for small farmers.	Assessment: <i>Students will demonstrate mastery of the objective by...</i>
1. Define recordkeeping and identify the benefits for farm businesses.	1. Discussing/brainstorming possible benefits in lecture.
2. Introduce different common records specific to useful for specialty crop farmers.	2. Students will follow along and participate in logging examples during class for each type of record.
3. Review budgeting and accounting options for small scale farmers.	3. Students will review budgeting and accounting principles and options covered in 'Finance Management & Accounting' class.
Materials: • Example records (if available) • Example budget • Production Planning Worksheet • Farmer Templates • Farm Recordkeeping Presentation • Farm Recordkeeping Presentation – Arabic version	
Procedure: 1. Review the definition of recordkeeping. Slide 2 2. Ask students why they should keep records for their farm. Record answers on whiteboard and generate group discussion. Review different reasons recordkeeping can be helpful or necessary, Slide 3-5. 3. Introduce and discuss both how to keep and how to use the following records. Discuss the available templates with farmers as you talk about each type of record. Slides 6-12. For each type of record explain the logic and components to the table, then practice filling out a blank table during class for any example crops relevant to the farmer group. - o Work log - o Variety list - o Seed starting/greenhouse schedule	

- o Field Schedule
 - o Harvest logs
 - o Sales logs
4. Discuss additional records that may be useful, including mileage, field maps, and inputs/applications. Slide 13.
 5. Review or introduce financial planning and records, and how they fit into recordkeeping for farmers. Whether or not students have covered these concepts will depend on if classes are being managed as a series for a cohort of students or if students are taking individual courses, as well as if 'Finance Management & Accounting' was covered before 'Recordkeeping' or not. Discuss both budgeting and accounting at a high level, including introducing a few software/app options farmers could choose from. Slides 14-19.
 6. Wrap up class by discussing best practices around when to record keep, focusing on time management and regularly updating or entering records vs. Waiting to enter records until it is tax time or the last minute.
 7. Follow up class with office hours or specific meetings with farmers to provide assistance with their recordkeeping. These could be weekly or monthly sessions where the student cohort meets to work on recordkeeping in community and instructors provide technical assistance, or one on one meetings as staff/instructor capacity allows.

References

Recordkeeping for Farmers – original presentation from Green School Farm

Bookkeeping for Farmers -

https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nerme2324_trackmultiplechannels_nov13.pdf

Budgeting & Recordkeeping Module - <https://nesfp.nutrition.tufts.edu/resources/financial-literacy-budgeting-and-record-keeping>

Micro-producer academy Module - <https://nesfp.nutrition.tufts.edu/resources/micro-producer-academy-budgeting>

Comments:

Suggest inviting students to bring the records they have to class so they can reference them, ask questions, and make notes for improvement or change.

Farm Business Planning Lesson Plan

Topic: Introduction to Farm Business Planning	Duration: 2-3 hours, depending on interpretation needs
Objective: Students will learn what a business plan is, why they are needed, and how to write one for their farm business.	Assessment: <i>Students will demonstrate mastery of the objective by...</i>
1. Define a business plan.	1. Students will apply their understanding of this concept in later activities.
2. Using the ship analogy, explain to students why a business plan is necessary and important to the success of their businesses.	2. Students will brainstorm reasons why a business plan might be important.
3. Introduce the two types of business plans, traditional and skinny.	3. Students will examine and discuss an example business plan in class.
4. Personal business SWOT analysis exploration & lean business plan exercise.	4. Students will fill out the SWOT analysis worksheet for their own personal businesses and begin working on their lean business plan worksheet.
Materials: • Down in the Dirt Farm example plan from Intervale • SWOT Analysis worksheet • Lean Business Plan worksheet • Business planning Presentation • Business planning Presentation – Arabic Version	
Procedure: 1. Ask students to answer the question ‘what is a business plan’? Record answers on a whiteboard or large tear pad. Slide 3. 2. Explain what a business plan is. Slides 4-6 3. Explain why a business plan is necessary. Slides 8-9. 4. Introduce the two main types of business plans and explain the differences between and uses of each. Slide 10.	

5. Explain each section of a traditional business plan using slides 11-35. Provide an overview of each part and use the Intervale example plan to discuss how the different core components of each section show up in the plan with the full class. Sections include:
 - o Executive Summary
 - o Company Description
 - o Market Analysis
 - o Organization and Management
 - o Financial Summary
 - o Marketing & Sales
 - o Service Line
 - o Appendix
6. Transition students into thinking about and applying core concepts to beginning to develop their own business plans, beginning with SWOT analysis. Remind students what SWOT analysis is, and have students fill out the SWOT analysis worksheet (pg. 3 of this document). If time, have students share back their reflections with full group.
7. Have students start to work on filling out their lean business plan template to conclude class. A second follow up session can be offered for technical assistance.

References:

<https://smallfarms.oregonstate.edu/smallfarms/sample-business-plans> - Intervale plan

Kelly Ross Presentations/classes - video recording

Comments: This class is intended to be the first of two, where the second class is focused on technical assistance and an open space where farmers can work on their business plans in community with instructor present.

SWOT Analysis Worksheet

Strengths	Weaknesses
Opportunities	Threats

Lean/Skinny Business Plan Worksheet

Your Farm Name:
Identity:
Problem:
Solution:
Target Market:
Competition:
Revenue Streams:

Marketing Activities:
Expenses:
Team and Key Roles:
Milestones:

ورقة عمل تحليل SWOT

نقاط الضعف	نقاط القوة
المخاطر	الفرص

ورقة عمل خطة عمل العجاف / المحدودة

اسم مزرعتك:
الهوية
مشكلة
حلنا
السوق المستهدف
المنافسة

تدفقات الإيرادات
الأنشطة التسويقية
النفقات
الفريق والأدوار الرئيسية

نقاط الانجاز

Becoming a Business: Business Legal Structures Lesson Plan

Topic: Becoming a Business	Duration: 2-3 hours, depending on interpretation needs
Objective: Students will learn about different business legal structures and how to choose what is right for their farm.	Assessment: <i>Students will demonstrate mastery of the objective by...</i>
1. Establish when registering as a business is needed and when you are considered a business.	1. Participants will participate in discussion and be able to ask questions as information is presented in class.
2. Explain the three main business legal structures.	2. Participants will participate in discussion and be able to ask questions as information is presented in class.
3. Define a sole proprietorship and LLC. Discuss how to decide which is right for a business and how to manage each.	3. Participants will fill out the attached worksheet to decide if they want to pursue LLC or sole proprietorship.
4. Discuss business insurance and introduce the different types.	4. Participants will use the attached worksheet prompt to start assessing their assets and how they might need to protect them.
Materials: • Trade name application (update if teaching for a different state!) • LLC reporting link - Nebraska (update if teaching for a different state!) • FEIN application / IRS Page • Whiteboard/dry erase markers • Becoming a Business Presentation • Becoming a Business Presentation – Arabic Version	
Procedure: 1. Discuss when registering as a business is necessary and when a business is recognized where you live. Slides 3-4. 2. Define major formation options – sole proprietorship, LLC, and corporation. Slide 5. 3. Examine the pros and cons of a sole proprietorship (Slide 6) with focus on: - o Liability level - o Personal & business finances	

- o Business names & trade names
- 4. Explain how to apply for a trade name. Show the application and discuss how to submit it in your state. Slide 7.
- 5. Examine the pros and cons of a LLC (slides 8-9) with focus on:
 - o Liability level
 - o Personal & business finances
 - o Business names & trade names
- 6. Explain how to become an LLC. Show the application and discuss how to submit it in your state. Slide 10 - 11.
- 7. Explain the requirements to maintain LLC with focus on reporting requirements and FEIN application. Show the class the EIN request/application from the IRS.
- 8. Review business insurance options.
- 9. Optional: hold time at the end of class to provide students technical assistance.

References

Becoming a Business – original presentation from Kross Consulting

Comments:

Becoming a Business Worksheet

1. Think about your farm business – what products do you sell? What products would you like to sell in the future?
2. Who are your customers?
3. Do you have employees?

4. Consider your answers to questions 1-3, and write down or think about potential situations in which you could be considered liable for something your business did. What level of liability do you have – low, medium, or high?
5. Make a list of your personal finances and assets. Make a list of your business finances and assets. Compare the lists and evaluate your risk and comfort level with your business and personal assets and money being connected vs. separate.
6. What goals do you have for your business? Do you need any infrastructure, equipment, or services to make your goals happen?
7. Think about your answers to questions 1-6. Decide which business structure you would like to pursue, sole proprietorship or Limited Liability Company.

Produce Safety Lesson Plan

Topic: Produce Safety Basics	Duration: 1-2 hours, depending on interpretation needs, and if any hands on activities or demonstrations are added to the lesson plan.
Objective: Students will learn about fundamental practices that promote produce safety. This course focuses on worker health and hygiene, and harvest/post harvest handling.	Assessment: <i>Students will demonstrate mastery of the objective by...</i>
1. Establish what produce safety means and why it is important.	1. Participants will participate in discussion and be able to ask questions as information is presented in class.
2. Explain how produce can become contaminated and related areas of produce safety.	2. Participants will participate in discussion and be able to ask questions as information is presented in class.
3. Discuss and establish worker health and hygiene best practices.	3. Participants will participate in discussion and be able to ask questions as information is presented in class.
4. Discuss and establish pre-harvest, harvest, and post harvest handling best practices.	4. Participants will participate in discussion and be able to ask questions as information is presented in class.
Materials: • Harvest tools and harvest knife examples • Hose or hose section (an image would work as well) • Bowls or totes • Soap and sanitizer examples • Test strips for pH • Twist tie examples • Pint and other packaging examples • Totes and/or wax lined boxes with liners	

- Measuring tool examples (for measuring sanitizer)
- Whiteboard/markers
- [Produce Safety presentation](#)
- [Produce Safety presentation – Arabic version](#)
- [Produce Safety handout/factsheet](#)
- [Produce Safety handout/factsheet - Arabic version](#)
- Wholesale Success book (linked in resources)

Procedure:

- 1) Open class by asking farmers what they think of when they hear the term ‘produce safety’ write their answers down on the whiteboard and create a definition based off of this feedback. Compare this definition with the definition presented in slide 2.
- 2) Ask farmers the reasons why produce safety might be important. Record their answers on the whiteboard and compare with the reasons in slide 3.
- 3) Review the four main foodborne illness causes, bacteria, virus, toxins and parasites. Provide some examples of how produce might encounter each. With bacteria, introduce and explain the F.A.T.T.O.M. acronym. Slide 4 – 5.
- 4) Provide some examples of real life food recalls. Slide 6.
- 5) Review contamination sources, including livestock/animals, humans, soil, water, and buildings/produce contact surfaces. Slide 7.
- 6) Review the areas of produce safety. Explain that this class will focus on practical tips for two of these areas and refer students to the produce safety handout for more information on others. Discuss the option of certificated produce safety courses, such as the Produce Safety Alliance trainings if students are interested. Slide 8.
- 7) Establish good handwashing practices, starting with when to wash hands. Slides 9-10.
- 8) Establish where and how to wash hands, how long to scrub, where, and with what techniques. Discuss the importance of dedicated handwash sinks and best drying best practices. Slide 11-13. Make sure to establish that using gloves in place of handwashing is not effective or acceptable.
- 9) Establish why it is important to have a dedicated restroom onsite. Slide 14.
- 10) Discuss what to do if you are ill, and how worker illness can transmit bacterial and virus. Slide 15.
- 11) Establish why wearing clean clothes when handling produce is important, that clothes can vector dirt and pathogens, and discuss strategies for supporting this, such as having dedicated harvest days and dedicated field days that are separate from one another. Slide 16.
- 12) Discuss other best practices related to hygiene including wearing no or minimal jewelry, keeping short, clean, unpainted nails, and tying back hair.
- 13) Move into discussing harvest and post harvest handling, beginning with establishing what produce contact surfaces are. Lay out some of the example tools and supplies brought in class and have farmers help identify what is a produce contact surface and what is not and why. Slide 19.

- 14) Establish that all produce contact surfaces need to be cleaned and sanitized before and after they touch produce, as well as if they become too dirty during use. Define cleaning vs. Sanitizing and provide examples of different sanitizers. Slide 20-21.
- 15) Walk through an example harvest day (or prep for harvest) with students, (Slide 20) and have them guide the example to help identify the following:
 - a) Handwashing should be done first
 - b) Sinks, basins, and surfaces used to wash and dry totes should be cleaned and sanitized before totes are washed and sanitized.
 - c) Totes used to collect harvest AND totes used to store produce post harvest should be cleaned & sanitized. In general, clean produce should not go in the same bin it was harvested into. Totes should be allowed to air dry without coming in contact with the ground.
 - d) Sinks, basins, specialized equipment and surfaces used to wash or dry produce should be cleaned and sanitized before they are used to clean produce.
 - e) How to use a 3 compartment system for washing, rinsing, and sanitizing, and how work should flow through the sinks or bins. Demonstrate with a tote or harvest tool.
 - f) How to dilute sanitizer water and test for pH. Demonstrate using sanidate or bleach. Make sure to discuss the importance of reading labels for dilution instruction and wearing PPE when appropriate.
- 16) Explain and define the cold chain, how to maintain it, and why it is important. Slides 23-24.
- 17) Wrap up class by overviewing best practices for harvest, washing, drying, and storage. Show farmers the Wholesale Success resource and discuss that not every type of produce needs the same level of washing or storage conditions post harvest. Invite farmers to ask questions specifically about produce they are growing, if they have them. Slides 25-27.

References

[Produce Safety Alliance Training](#)

[Wholesale Succes book](#)

Comments:

Note on Additional Classes & Slidedecks

There were four classes that were hosted in our original series we did not develop lesson plans for, due to the technical nature of the topics. After discussion with our outside instructors who taught these classes, we recommend having experts in your community talk to farmers about the following topics versus taking on instruction on your own as a general ag educator.

- Insurance
- Tax Preparation
- Cooperative Ownership models
- Local Funding Resources for Small Scale Growers

Not only is this due to the unique, complex, and technical nature of the topics, but also because for many beginning farmers, the best course of action to pursue some of these business related tasks is to work directly with an expert in the field, such as a tax preparer, insurance agent, lawyer, grant officer or agency, etc...

While our final curriculum did not include insurance or taxes, we are sharing the slide decks for those classes below:

- [Insurance Presentation Slides](#)
- [Taxes Presentation Slides](#)

All presentations for other topics are linked in the lesson plans. Each topic is also available in Arabic. With any related questions or to request the Arabic slide decks email agerdes@familyservicelincn.org. Currently, Arabic is the only language our presentations, handouts, and worksheets are translated into.

Class Recordings from the First Year

The classes from the first year were recorded for students to access after classes, or for those needing make up work. They contain both English audio and live Arabic/Kurdish translation. We are including them here as reference for instructors only.

- [Marketing](#)
- [Farm Recordkeeping](#)
- [Production Planning](#)
- [Becoming a Business](#)
- [Taxes](#)
- [Business Planning](#)
- [Brand Identity](#)
- [Finance Management & Accounting](#)
- [USDA & NRCS Cost Sharing Programs and Resources](#)