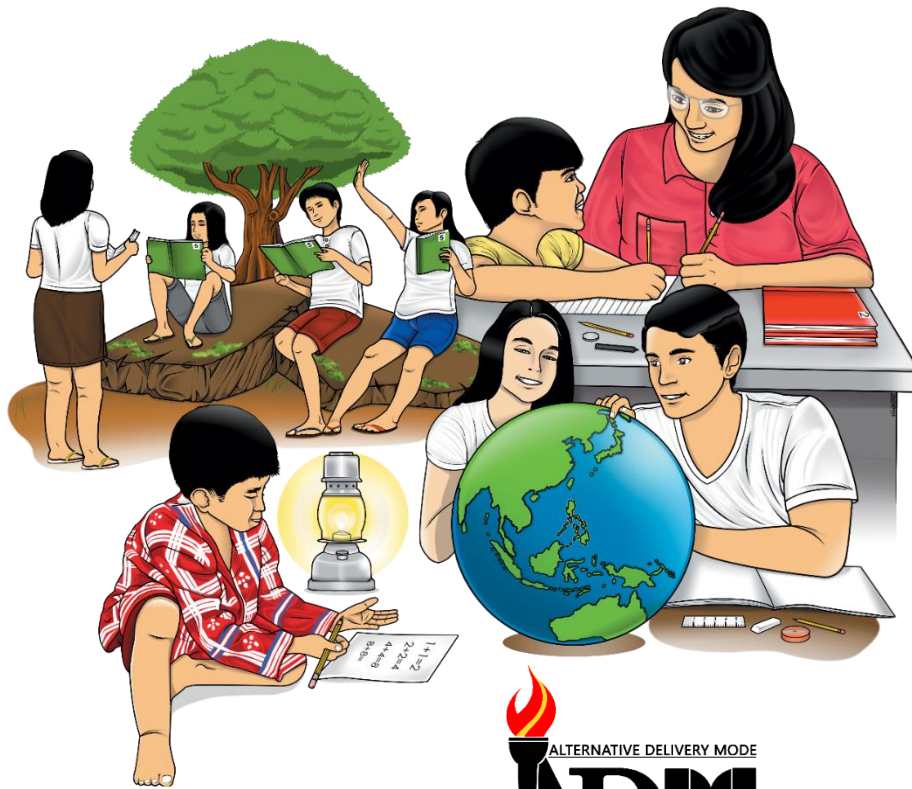


# Technology and Livelihood Education

## Quarter 1 - Module 4 Maintaining Production Record (Preparing Production Plan According to Enterprise Requirements)

### Agricultural Crop Production NC II



# **Technology and Livelihood Education**

## **Quarter 1 - Module 4**

### **Maintaining Production Record**

(Preparing Production Plan According to  
Enterprise Requirements)

### **Agricultural Crop Production NC II**

**Agricultural Crop Production NC II – Grade 10**  
**Alternative Delivery Mode**  
**Quarter 1 – Module 4: Maintaining Production Record**  
**(Preparing Production Plan According to Enterprise Requirements**  
**Carrying out inventory activities)**

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# Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLMS is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and test. And read the instructions carefully before performing each task.

If you have questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



## ***Notes to the Teacher***

This contains helpful tips or strategies that will help you in guiding the learner.











For the facilitator:

Hi, as a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Kindly, advise the learner's parents or guardians of the same procedure since they will be the primary supporters in the learners' progress. Please, do not forget to remind the learner to use separate sheets in answering all of the activities found in the learning module

For the learner:

Hello learner, Welcome to the Agricultural Crop Production NC II Alternative Delivery Mode (ADM) Module on Preparing Production Plan According to Enterprise Requirements-Agricultural Crop Production NC II, Maintaining Production Record. I hope you are ready to progress in your Grade 10 TLE in Agriculture with this learning module. This is designed to provide you with interactive tasks to further develop the desired learning competencies prescribed in our curriculum. With this, you are expected to appreciate staking through the information and activity given.

This module has the following parts and corresponding icons:

ICON	LABEL	DETAIL
	What I Need to Know	This contains the learning objectives which you need to accomplish.
	What I know	This evaluates what you know about the lesson you are to learn.
	What's In	This connects the current lesson with a topic necessary in your understanding.
	What's New	This introduces the lesson through an activity.
	What Is It	This contains a brief discussion of the learning module lesson.
	What's More	These are activities to check your understanding of the lesson.
	What I Have Learned	This summarizes the important ideas presented in the lesson.
	What I Can Do	This is a real-life application of what you have learned.
	Assessment	This is a post assessment of what you have learned.
	Additional Activity	This is an activity that will strengthen your knowledge about the lesson.

At the end of this module you will also find:

References

This is a list of all sources used in developing this module.

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# Lesson 1

## Determining defective tools and equipment according to operation manuals

The following are some reminders in using this module:

1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Don't forget to answer *What I Know* before moving on to the other activities included in the module.
3. Read the instruction carefully before doing each task.
4. Observe honesty and integrity in doing the tasks and checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator. Always bear in mind that you are not alone.

We hope that through this material, you will experience meaningful learning and gain deep understanding of the relevant competencies. You can do it!



### ***What I Need to Know***

This module was designed and written to guide you to acquire the learning competencies and develop your skills in Preparing Production Plan According to Enterprise Requirements-Agricultural Crop Production, Maintaining Production Record. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. However, the order in which you read the module can be changed to correspond with the textbook you are now using.

Quarter/Week

Q1/W3

Learning Competency Code

TLE\_AFAAPC9- 12PRK-Ic-f-14

Learning Competency

**LO2. Maintain production record**

2.1 Prepare production plan according to enterprise requirements

### **Learning Objectives:**

After going through this module, you are expected to:

1. know the importance of planning before doing;
2. identify the considerations in planning production; and,
3. apply planning in farm operations.



## ***What I Know***

### **Pretest**

This is to check if you are familiar on the lesson. Whatever the result of your answer on this portion will not affect your grade performance on this module.

**Directions.** Read the following questions carefully and identify the words or group of words that the statement required, write your answer in separate sheet of paper.

1. \_\_\_\_\_ is a strategic plan which farmer do whenever they want to produce goods it includes confirming product to be produce, production volume, capacity planning, materials required, scheduling timelines.
2. The \_\_\_\_\_ is main asset of farming.
3. A \_\_\_\_\_ is an agreement through which the seller of the land agrees to finance the sale to a new buyer.
4. \_\_\_\_\_ is a property left to a relative or non-family member at the time of death.
5. \_\_\_\_\_ is a real estate can be gifted from the owner during his or her lifetime to another party such as a beginning farmer who may or may not be a family member.
6. \_\_\_\_\_ It is important to know the soil types on a farm and the natural productive capability of the land.
7. \_\_\_\_\_ Farms with high soil test levels for phosphorus and potassium will require considerably less fertilizer for crop production, and thus may have more rental value.
8. \_\_\_\_\_ - Use of storage units, machinery storage, livestock buildings, and other facilities can add to the cash rent value on a farm unit. In some cases, the use of these facilities is included in rent paid for the tillable land.
9. \_\_\_\_\_ The potential profit or net return from crop production is a major determinant in the rental rate for a farm. This will likely only be applicable if there is recent production on the farm that is similar to what you have planned.
10. \_\_\_\_\_ In many cases, tenants perform services for which they are not paid. These may include such things as providing the labor, irrigation repair, make building repairs, maintain lanes and roadways on the farm, etc. These services need to be recognized in establishing the lease amount.

### II. Matching Type



Direction: Read the statement at Column A carefully and match it in Column B by writing a letter of your choice in your answer sheet.

COLUMN A	COLUMN B
<ol style="list-style-type: none"> <li>1. In this scenario, a young farmer joins the senior farmer’s operation, typically starting as an employee and working up to an equity position as a partner or member of the farm business company.</li> <li>2. Typically, one to three years in length, short term leases can offer both flexibility and some stability.</li> <li>3. Long-term leases typically last for a minimum of 5 years and more, allowing assured continuity and more opportunity for tenants to plan and invest in the farm business and the farmland.</li> <li>4. The basic types of agreements that enable a tenant to acquire ownership of the rental property in the future.</li> <li>5. In a sharecropping agreement, a new farmer operates a farm on behalf of the farm owner for an agreed share of farm income and expenses.</li> </ol>	<ol style="list-style-type: none"> <li>A. Sharecropping or Share milking</li> <li>B. Lease</li> <li>C. Lease-to-Purchase Arrangements</li> <li>D. Short-term rental</li> <li>E. Long-term lease</li> <li>F. Work-in</li> </ol>



### ***What’s In***

Hello learners. In the previous lesson, you have learned Inspecting facilities according to standard codes and laws in this activity you are going to identify words or groups of words that encompass the statement to checked your retention on what you have learned. Choose your answer on the given box. Put your answer on your answer sheets.

Pesticide use by workers or handlers	Building
Renovation/demolition	Air Emissions
Hazardous waste	Oil spill

- \_\_\_ 1. Report spills of oil that reach waterways to DENR.
- \_\_\_ 2. Label restrictions typically require protective clothing and engineering controls
- \_\_\_ 3. Secure a permit
- \_\_\_ 4. Proper handling of listed and characteristic hazardous
- \_\_\_ 5. Comply with regulatory requirements.



## ***What's New***

**Instruction:** Answer the following questions in NOT MORE THAN five (5) sentences. Refer to the rubric below for the assigned points. (5points each)

CRITERIA	ASSIGNED POINTS
Content	3 points
Grammar	1 point
Organization of thoughts	1 point
TOTAL POINTS	5 points

Questions:

1. What do you think the importance of planning farm production?
2. What do you consider in planning a farm? Explain.



## ***What Is It***

### **What is Production Planning?**

Production planning is a strategic plan which farmer do whenever they want to produce goods. Production planning includes confirming product to be produce, production volume, capacity planning, materials required, scheduling timelines etc. This is important for farmer who to maximize efficiency, reduce costs & have a sustainable production cycle.

### **Importance of Production Planning**

This involves making a detailed production schedule. It also involves deciding from where to obtain the raw materials, how much raw materials are required, when should the resources be made available for production, planning the sequence of activities, etc. The main aim is maximizing profits, minimizing costs and meeting the customer requirements. Production planning also aims at predicting the possible glitches in production and ensuring smooth execution of operations.



### **Steps in Production Planning**

Some of the main steps in the production plan progress are:

1. Analyzing customer demand.
2. Determining production capacity & timelines.
3. Evaluate raw materials, output volume etc.
4. Production control, quality control, accounting.
5. Evaluation & improvement of production system.
6. Complete final production of finished goods.

In operating farm, planning covers all of the details how your farm operation will produce products for market. This can include considering the production capacity of your land, the varieties or breeds you select for your climate and production practices, the types of equipment, buildings, and facilities you have or need, your production practices, and more.

One of the most important things to consider is your land. Check out our resources on land access and evaluation to learn about resources that can help you evaluate your land's soil, water, and other attributes.

### **Accessing Land**

Across the country, land access is one of the primary issues facing beginning farmers. Land may be unavailable in your community or available, but priced out of your range. Either way, it can be a major challenge to starting a

farm. In some areas of the country, these challenges are causing farmers to stop looking for land to purchase and focusing solely on leasing. Unfortunately, finding good farmland to lease may be as difficult as finding good farmland to purchase, and comes along with its own set of challenges.

### **Farm Financials**

Most of us don't come to farming because we love bookkeeping, marketing, or reading insurance plans. However, those elements are critical to being successful in agriculture. As Richard Wiswall, author of *The Organic Farmer's Business Handbook* has said, if you want to keep farming, you have to "farm for profit, not production."

At the same time, across the entrepreneurship spectrum, businesses require three different kinds of smarts and interests: passion for and knowledge about the product, the marketing, and the accounting. Although every business needs all three, it's incredibly rare for one human to have them all. As entrepreneurs, we all typically have passion for the product and then we likely get excited about the marketing *or* the accounting. It's important to figure out which is your passion early on.

Regardless of how you achieve it, managing and thoroughly understanding your farm's financials can make a big difference in your level of success. It will help you to track your position and know when you're having a good year or a bad year so you can pivot and make changes. It will allow you to talk to potential lenders, investors, customers, and donors more effectively. It will help you to make better decisions and will help you make it through the first level of farming operations.

### **Consideration on Land Asset**

**Land contract or owner financing:** A land contract sale is an agreement through which the seller (original owner) of the land agrees to finance the sale to a new buyer. The new buyer moves onto the land and begins making payments directly to the seller/owner based on an agreed-upon interest rate and other terms. The title remains with the owner until all payments are made. The contract may also provide for monthly payments for a number of years.

**Inheritance:** Property left to a relative or non-family member at the time of death. If the deceased had a will, it stipulates how assets are to be distributed. Sometimes the farm real estate goes to one child and other assets go to others.

Sometimes the farm goes to all children and they have to figure out how to deal with that. Sometimes there is debt that accompanies the asset. Good estate planning is essential, and estate taxes can be avoided or minimized.

**Gift:** Real estate can be gifted from the owner during his or her lifetime to another party such as a beginning farmer who may or may not be a family member.

**Work-in:** In this scenario, a young farmer joins the senior farmer's operation, typically starting as an employee and working up to an equity position as a partner or member of the farm business company. Assets (and management) are transferred gradually.

### **Lease Options**

1. Short-term rental: Typically, one to three years in length, short term leases can offer both flexibility and some stability. There are disadvantages too, such as lack of security and inability to build equity.
2. Long-term lease: Long-term leases typically last for a minimum of 5 years and more, allowing assured continuity and more opportunity for tenants to plan and invest in the farm business and the farmland.
3. Lease-to-Purchase Arrangements: There are two basic types of agreements that enable a tenant to acquire ownership of the rental property in the future. In a Lease with Option to Purchase the lease grants the tenant an option to purchase the property at a time in the future. Usually the price and the terms of the purchase are set forth at the outset. The option may run for the length of the lease or for only a portion of the lease period. The lease payments are not part of the consideration of the purchase price unless the terms specifically allow for that. In a Lease-Purchase Agreement, the tenant leases the property and is obligated by the terms of the lease to buy the property.
4. Sharecropping/Share milking: In a sharecropping agreement, a new farmer operates a farm on behalf of the farm owner for an agreed share of farm income and expenses. The arrangement offers young farmers a way to build assets and dairy management skills without requiring a large amount of capital input at the beginning of their careers.

Several other variables are key to consider;

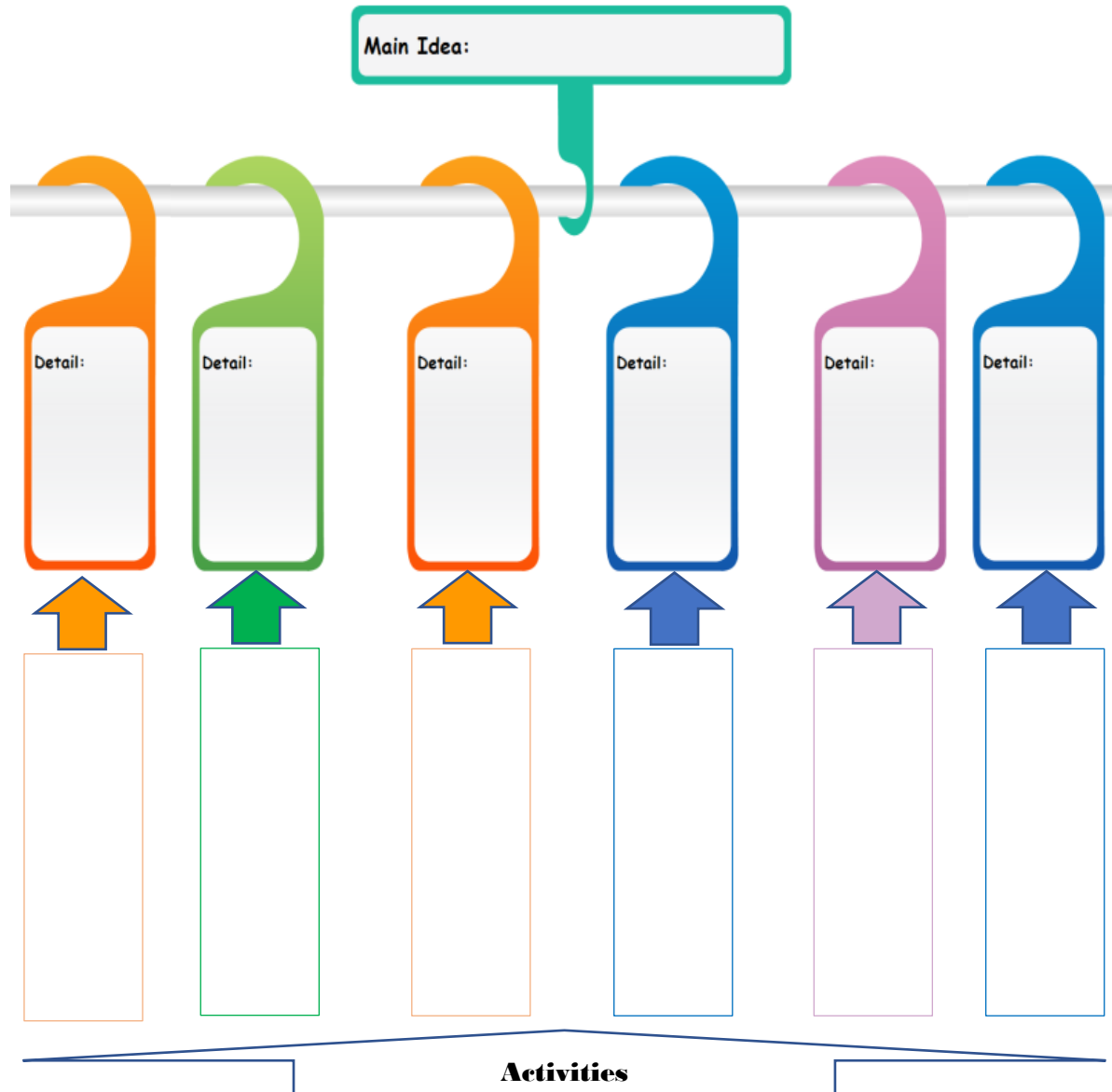
- Land Quality - It is important to know the soil types on a farm and the natural productive capability of the land.
- Fertility - Soil fertility levels are often overlooked. Farms with high soil test levels for phosphorus and potassium will require considerably less fertilizer for crop production, and thus may have more rental value. Similarly, farms with low fertility levels may require extra applications of phosphate and potassium to raise nutrient levels to an acceptable level. If the tenant is responsible for the cost of building the fertility level of the farm, this will lower the rental value of the farm. The removal of crop residues such as corn stalks or crops waste is removing additional nutrients. These nutrients should be replaced through heavier fertilizer applications.
- Use of Facilities - Use of storage units, machinery storage, livestock buildings, and other facilities can add to the cash rent value on a farm unit. In some cases, the use of these facilities is included in rent paid for the tillable land. In other cases, lease terms call for a separate rent to be paid for facilities.
- Expected crop returns - The potential profit or net return from crop production is a major determinant in the rental rate for a farm. This will likely only be applicable if there is recent production on the farm that is similar to what you have planned.
- Services provided by tenant – In many cases, tenants perform services for which they are not paid. These may include such things as providing the labor, irrigation repair, make building repairs, maintain lanes and roadways on the farm, etc. These services need to be recognized in establishing the lease amount.



## What's More

**Direction:** Using a graphic organizer, level how do you plan effectively for successful farm production.

You will be given points according to rubrics given below.



Criteria	4	3	2	1
<b>Clear</b>	Exceptionally clear and easy to understand	Generally clear and quite easy to understand	Lacks clarity and difficult to understand	Unclear explanation
<b>Comprehensive</b>	Thorough and comprehensive explanation	Substantial explanation	Partial or not comprehensive explanation	Misunderstanding or serious misconception on the explanation
<b>Relevant</b>	Highly relevant	Generally relevant	Somewhat relevant	Irrelevant



## ***What I Have Learned***

Direction: Summarized what you have learned on the topic discussed. Using Narrative essay outline.

### **Introduction**

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### **Body**

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### **Conclusion**

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<b>Criteria</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Clear</b>	Exceptionally clear and easy to understand	Generally clear and quite easy to understand	Lacks clarity and difficult to understand	Unclear explanation
<b>Comprehensive</b>	Thorough and comprehensive explanation	Substantial explanation	Partial or not comprehensive explanation	Misunderstanding or serious misconception on the explanation
<b>Relevant</b>	Highly relevant	Generally relevant	Somewhat relevant	Irrelevant

**Facilitator's Remarks:**





## What I Can Do

Direction:

Applying what you have learned by answering the table below for you to gather information necessary in planning farm production.

<i>Steps</i>	<i>Guide questions</i>
Analyzing customer demand.	<i>What are the local demands in terms of agricultural Products? List them all.</i>
Determining production capacity & timelines.	<i>How much it needed in a week/month/year? Which crop has the highest demand?</i>
Evaluate raw materials, output volume etc.	<i>What are the materials needed to produce? Identify. List them all.</i>  <i>If land involved identify type of land according to your land assessment.</i>
Production control, quality control, accounting	<i>What are the hindrances in production? List them all.</i>  <i>How do you solve the problem?</i>

<b>Criteria</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Clear</b>	Exceptionally clear and easy to understand	Generally clear and quite easy to understand	Lacks clarity and difficult to understand	Unclear explanation
<b>Comprehensive</b>	Thorough and comprehensive explanation	Substantial explanation	Partial or not comprehensive explanation	Misunderstanding or serious misconception on the explanation
<b>Relevant</b>	Highly relevant	Generally relevant	Somewhat relevant	Irrelevant

**Facilitator's Remarks:**



## ***Post-Assessment***

### **Post-Test Multiple Choice.**

**Directions.** Read the following questions carefully, select the letter of the correct answer and write on your activity notebook.

1. A young farmer joins the senior farmer's operation, typically starting as an employee and working up to an equity position as a partner or member of the farm business company.  
A. Short-term rental      C. Long-term lease  
B. Work-in                      D. Lease-to-Purchase
2. One to three years in length, short term leases can offer both flexibility and some stability. There are disadvantages too, such as lack of security and inability to build equity.  
A. Short-term rental      C. Long-term lease  
B. Work-in                      D. Lease-to-Purchase
3. It last for a minimum of 5 years and more, allowing assured continuity and more opportunity for tenants to plan and invest in the farm business and the farmland.  
A. Short-term rental      C. Long-term lease  
B. Work-in                      D. Lease-to-Purchase
4. Agreements that enable a tenant to acquire ownership of the rental property in the future.  
A. Short-term rental      C. Long-term lease  
B. Work-in                      D. Lease-to-Purchase
5. New farmer operates a farm on behalf of the farm owner for an agreed share of farm income and expenses.  
A. Production planning                      C. Land  
B. Sharecropping/Share milking                      D. land contract sale
6. Strategic plan which farmer do whenever they want to produce goods it includes confirming product to be produce, production volume, capacity planning, materials required, scheduling timelines.  
A. Production planning                      C. Land  
B. Sharecropping/Share milking                      D. land contract sale
7. The main asset of farming.  
A. Production planning                      C. Land

- B. Sharecropping/Share milking                      D. land contract sale
8. An agreement through which the seller (original owner) of the land agrees to finance the sale to a new buyer.
- A. Production planning                                      C. Land  
B. Sharecropping/Share milking                      D. land contract sale
9. Property left to a relative or non-family member at the time of death.
- A. Soil fertility levels                                      C. Gift  
B. Land Quality    D. Inheritance
10. A real estate that come from the owner during his or her lifetime to another party such as a beginning farmer who may or may not be a family member.
- A. Soil fertility levels                                      C. Gift  
B. Land Quality    D. Inheritance
11. Soil types on a farm and the natural productive capability of the land.
- A. Soil fertility levels                                      C. Gift  
B. Land Quality    D. Inheritance
12. Farms with high soil test levels for phosphorus and potassium will require considerably less fertilizer for crop production, and thus may have more rental value.
- A. Soil fertility levels                                      C. Gift  
B. Land Quality    D. Inheritance
13. Use of storage units, machinery storage, livestock buildings, and other facilities can add to the cash rent value on a farm unit. In some cases, the use of these facilities is included in rent paid for the tillable land.
- A. Services provided by tenant                      C. Expected crop returns  
B. Use of Facilities                                      D. Inheritance
14. The potential profit or net return from crop production is a major determinant in the rental rate for a farm. This will likely only be applicable if there is recent production on the farm that is similar to what you have planned.
- A. Services provided by tenant                      C. Expected crop returns  
B. Use of Facilities                                      D. Inheritance
15. Tenants perform services for which they are not paid. These may include such things as providing the labor, irrigation repair, make building repairs, maintain lanes and roadways on the farm, etc. These services need to be recognized in establishing the lease amount.
- A. Services provided by tenant                      C. Expected crop returns  
B. Use of Facilities                                      D. Inheritance



## ***Additional Activity***

### **Instruction:**

**Instruction:** Answer the following questions in NOT MORE THAN five (5) sentences. Refer to the rubric below for the assigned points. (5points each)

CRITERIA	ASSIGNED POINTS
Content	3 points
Grammar	1 point
Organization of thoughts	1 point
TOTAL POINTS	5 points

### Questions:

1. What type of land asset do you have? Explain.
2. What do you think the most important asset in crop production? Explain.
3. What do you consider in planning crop production? Explain.
4. How do plan strategically?



## Answer Key

<p><i>Assessment</i> Multiple Choice.</p> <p>1. B 2. A 3. C 4. D 5. B 6. A 7. C 8. D 9. D 10. C 11. B 12. A 13. B 14. C 15. A</p>	<p><i>What I Know</i> Pre-Test</p> <p>1. Production planning 2. Land 3. land contract sale 4. Inheritance 5. Gift 6. Land Quality 7. Soil fertility levels 8. Facilities 9. Expected crop returns 10. Services provided by tenant</p> <p>II. Matching Type</p> <p>1. F 2. D 3. E 4. C 5. A</p> <p>What's in IDENTIFICATION TYPE</p> <p>1. Oil spill 2. Pesticide use by workers or handlers 3. Building renovation/demolition 4. Hazardous waste 5. Air Emissions</p>
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