320 Applied Crop Management

Unit	Objective	CAERT Lesson Plan Library	Unit	Problem Area	Lesson
A. Planting	1. Discuss row spacing, seeding depth, and seeding rate as they affect plant growth and development	Agricultural Mechanics	A	7	3
	2. Discuss how soil texture, soil temperature, soil moisture, and plant emergence structure affect planting depth				
	3. List factors affecting final plant population	Agricultural Mechanics	C	5	1
	4. Identify different types of planting equipment	Agricultural Mechanics	A	7	3
	5. List the steps in adjusting and calibrating planting equipment	Agricultural Mechanics	A	7	3
	6. Calibrate planting equipment to deliver a known amount of seed per acre	Agricultural Mechanics	A	7	3
	7. Plan a planting schedule				
B. Potato Production	1. Name the stages of growth of the potato plant	Animal, Plant, & Soil Science	C	3	2
	2. Discuss seedbed preparation for potato production				
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Discuss the major factors in planting seed	Animal, Plant, & Soil Science	C	5	1
	5. Make fertilizer recommendations for potato production	Animal, Plant, & Soil Science	C	8	3
	6. Identify symptoms, names, and causal agents of diseases common to potato production, and discuss control methods	Animal, Plant, & Soil Science	C	9	10
	7. Identify and describe beneficial and harmful insects common to potato production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	8. Identify weeds that are common to potato production and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	9. Discuss harvesting, handling and storage of potatoes				
	10. Identify potential markets for potatoes				
	11. Discuss enterprise management for potato production				
C. Small Grain Production	1. Name the stages of growth of small grains	Animal, Plant, & Soil Science	C	3	2
	2. Discuss seedbed preparation for small grain production	Animal, Plant, & Soil Science	C	9	3,5
	3. List common varieties of seed and discuss major points in selecting and preparing seed	Animal, Plant, & Soil Science	C	9	3,5
	4. Discuss the major factors in planting seed	Animal, Plant, & Soil Science	C	9	3,5
	5. Make fertilizer recommendations for small grain production	Animal, Plant, & Soil Science	C	8,9	3,3
	6. Identify symptoms, names, and causal agents of diseases common to small grain production and discuss control methods	Animal, Plant, & Soil Science	C	9	3,5
	7. Identify and describe beneficial and harmful insects common to small grain production and discuss control methods	Animal, Plant, & Soil Science	C	9	3,5
	8.Identify weeds common to small grain production and discuss control methods	Animal, Plant, & Soil Science	C	10	1

	9. Discuss harvesting, storage and handling of small grains	Agricultural Mechanics	A	7	7
	10. Identify potential markets for small grain				
	11. Discuss enterprise management for small grain production				
	12. Describe equipment and adjustment for grain production	Agricultural Mechanics	A	7	7
D. Corn Production	1. Name the stages of growth of the corn plant	Animal, Plant, & Soil Science	C	3	2
	2. Discuss seedbed preparation for corn production	Animal, Plant, & Soil Science	C	9	1
	3. List common varieties of seed and discuss major points in selecting and preparing seed	Animal, Plant, & Soil Science	C	9	1
	4. Discuss major factors in planting	Animal, Plant, & Soil Science	C	9	1
	5. Make fertilizer recommendations for corn production	Animal, Plant, & Soil Science	C	9	1
	6. Identify symptoms, names, and causal agents of diseases common to corn production and discuss control methods	Animal, Plant, & Soil Science	C	9	1,10
	7. Identify and describe beneficial and harmful insects common to corn production and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	8. Identify weeds common to corn production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	9. Discuss harvesting, storage and handling of corn	Animal, Plant, & Soil Science	C	9	1
	10. Identify potential markets for corn	Animal, Plant, & Soil Science	C	9	1
	11. Discuss enterprise management for corn production	Animal, Plant, & Soil Science	C	9	1
	12. Describe the equipment adjustments for corn production	Animal, Plant, & Soil Science	C	9	1
E. Forage Production	1. Name the stages of growth of forage crop plants	Animal, Plant, & Soil Science	C	9	6
	2. Discuss seedbed preparation for forage production	Agricultural Mechanics	A	7	3
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Discuss the major factors in planting seed	Agricultural Mechanics	A	7	3
	5. Make fertilizer recommendations for forage production	Animal, Plant, & Soil Science	C	8	3
	6. Identify symptoms, names, and causal agents of diseases common to forage production and discuss control methods	Animal, Plant, & Soil Science	C	9	10
	7. Identify and describe beneficial and harmful insects common to forage production and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	8. Identify weeds common to forage production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	9. Discuss harvesting, storage and handling of forage crops	Animal, Plant, & Soil Science	C	9	6
	10. Identify potential markets for forage crops				
	11. Discuss enterprise management for forage production				
	12. Describe equipment adjustments for forage production	Agricultural Mechanics	A	7	6
F. Pasture Management	1. List steps to follow in preparing the ideal seedbed for pasture				
	2. List common pasture plants and varieties of each				
	3. Discuss major factors in planting	Agricultural Mechanics	A	7	3
	4. Make fertilizer recommendations for pastures	Animal, Plant, & Soil Science	C	8	3

	5. Identify weeds and brush common to pastures and discuss control methods				
	6. List methods to follow in order to increase production of forage growth and advantages of renovating pastureland				
	7. Discuss economic value of pasture as compared to other livestock feeds				
	8. Discuss enterprise management for pastures				
	9. List compatible combinations of plants for pastures in your area				
G. Rangeland Management	1. List suitable grasses and legumes, and factors to consider in selection of rangeland foliage				
	2. Identify grasses and legumes which complement each other when grown together				
	3. Describe good summer and good winter rangeland				
	4. Select the proper method of seeding rangeland when given the soil type and topography				
	5. Describe the different grazing systems and ways to prevent overgrazing				
	6. Describe the ideal grazing system and identify management principles for a rangeland operation				
	7. Calculate, from given data, the carrying capacity of an acreage of rangeland				
	8. Calculate the animal units per month (AUM's) of a beef herd or sheep flock using public lands				
	9. Calculate the cost of leasing public land based on available AUM's and forage production capabilities				
	10. Identify rangeland plants				
H. Sugarbeet Production	1. Name the stages of growth of the sugarbeet plant	Animal, Plant, & Soil Science	C	3	2
	2. Discuss seedbed preparation for sugarbeet production				
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Discuss major factors in planting seed	Agricultural Mechanics	A	7	3
	5. Make fertilizer recommendations for sugarbeet production	Animal, Plant, & Soil Science	C	8	3
	6. Identify symptoms, names, and causal agents of diseases common to sugarbeet production and discuss control methods	Animal, Plant, & Soil Science	C	9	10
	7. Identify beneficial and harmful insects common to sugarbeet production and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	8. Identify weeds common to sugarbeet production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	9. Discuss harvesting techniques and procedures to follow in handling sugarbeets				
	10. Identify potential markets for sugarbeets				

	11. Describe equipment adjustments for sugarbeet production				
I. Pea Production	1. Name the stages of growth of the pea plant				
	2. Discuss seedbed preparation for pea production				
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Discuss major factors in planting seed	Agricultural Mechanics	A	7	3
	5. Make fertilizer recommendations for pea production	Animal, Plant, & Soil Science	C	8	3
	6. Identify symptoms, names, and causal agents of diseases common to pea production and discuss control methods	Animal, Plant, & Soil Science	C	9	10
	7. Identify beneficial and harmful insects common to pea production and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	8. Identify weeds common to pea production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	9. Discuss harvesting techniques and procedures to follow in handling peas				
	10. Identify potential markets for peas				
	11. Describe equipment adjustments for pea production				
J. Lentil Production	1. Name the stages of growth of the lentil plant	Animal, Plant, & Soil Science	C	3	2
	2. Discuss seedbed preparation for lentil production				
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Discuss major factors in planting seed	Agricultural Mechanics	A	7	3
	5. Make fertilizer recommendations for lentil production	Animal, Plant, & Soil Science	C	8	3
	6. Identify symptoms, names, and causal agents of diseases common to lentil production and discuss control methods	Animal, Plant, & Soil Science	C	9	10
	7. Identify beneficial and harmful insects common to lentil production and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	8. Identify weeds common to lentil production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	9. Discuss harvesting techniques and procedures to follow in handling lentils				
	10. Identify potential markets for lentils				
	11. Describe equipment adjustments for lentil production				
K. Commercial Bean Producti	1. Name the stages of growth of the bean plant	Animal, Plant, & Soil Science	C	3	2
	2. Discuss seedbed preparation for bean production				
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Discuss major factors in planting seed	Agricultural Mechanics	A	7	3
	5. Make fertilizer recommendations for bean production	Animal, Plant, & Soil Science	C	8	3
	6. Identify symptoms, names, and causal agents of diseases common to bean production and discuss control methods	Animal, Plant, & Soil Science	C	9	10

	7. Identify beneficial and harmful insects common to bean production and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	8. Identify weeds common to bean production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	9. Discuss harvesting techniques and procedures to follow in handling beans				
	10. Identify potential markets for beans				
	11. Describe equipment adjustments for bean production				
L. Rapeseed Production	1. Name the stages of growth of the rapeseed plant	Animal, Plant, & Soil Science	C	3	2
	2. Discuss seedbed preparation for rapeseed production				
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Discuss major factors in planting seed	Agricultural Mechanics	A	7	3
	5. Make fertilizer recommendations for rapeseed production	Animal, Plant, & Soil Science	C	8	3
	6. Identify symptoms, names, and causal agents of diseases common to rapeseed production and discuss control methods	Animal, Plant, & Soil Science	C	9	10
	7. Identify beneficial and harmful insects common to rapeseed production and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	8. Identify weeds common to rapeseed production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	9. Discuss harvesting techniques and procedures to follow in handling rapeseeds				
	10. Discuss harvesting techniques and procedures to follow in handling rapeseeds				
	11. Describe equipment adjustments for rapeseed production				
M. Grass Seed Production	1. Name the stages of growth of the grass plant	Animal, Plant, & Soil Science	C	3	2
	2. Discuss seedbed preparation for grass seed production				
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Discuss major factors in planting seed				
	5. Make fertilizer recommendations for grass seed production	Animal, Plant, & Soil Science	C	8	3
	6. List methods of increasing forage growth				
	7. Identify weeds common to grass seed production and discuss control methods	Animal, Plant, & Soil Science	C	10	4
	8. Discuss harvesting techniques and procedures to follow in handling grass seed				
	9. Identify potential markets for grass seed				
	10. Discuss enterprise management for grass seed production				
	11. Describe equipment adjustments for grass seed production	Agricultural Mechanics	A	7	3
N. Specialty Crops	1. List and describe vegetative and reproductive growth of specially crops in Idaho				

	2. Discuss the economic importance of selected specially crops to Idaho				
	3. List common varieties of seed and discuss major points in selecting and preparing seed				
	4. Identify planting equipment used and discuss major factors involved in planting	Agricultural Mechanics	A	7	6
	5. Make fertilizer recommendations for specialty crops	Animal, Plant, & Soil Science	C	8	3
	6. Identify harmful pests common to specialty crops and discuss control methods	Animal, Plant, & Soil Science	C	10	1
	7. Discuss harvesting techniques and procedures to follow in handling specially crops				
	8. List poor, average, and excellent yields for specialty crops in Idaho				
	9. Identify potential markets for specialty crops				
O. Crop Storage	1. Describe the characteristics of a good crop storage facility	Agricultural Mechanics	A	7	7
	2. Describe advantages and disadvantages of different storage facilities				
	3. Describe the key factors to consider: moisture content, costs, time and labor, storage losses, etc. when selecting storage facilities	Agricultural Mechanics	A	7	7
	4. Calculate the volume of storage and estimate the products stored within				
	5. Operate a moisture tester to determine moisture content of harvested crop	Agricultural Mechanics	A	7	7
	6. Compare systems for drying crops and calculate drying costs in relation to benefits	Agricultural Mechanics	A	7	7
	7. Describe procedure for fumigating a storage bin for insect control				
	8. Plan a storage facility for a given farm taking into account existing facilities and long range goals				
	9. Describe handling systems needed for storage facility	Agricultural Mechanics	A	7	7
	10. Calculate construction and operation costs of a given storage facility				
	11. Describe economics of on farm storage vs. off farm storage				
P. Crop Marketing and Exporting	1. Identify and describe traditional markets for farm goods	Agribusiness Management	B	5	1
	2. Discuss how supply and demand affect market conditions	Agribusiness Management	A	3	1
	3. List factors causing shifts in demand of a commodity	Agribusiness Management	A	3	1
	4. Discuss the main function of product standards				
	5. List factors that influence time to market				
	6. List sources of crop market information				
	7. List the advantages and disadvantages of the futures market	Agribusiness Management	C	3	6
	8. Discuss hedging as it relates to crop marketing	Agribusiness Management	C	3	5

	9. Discuss economic impact of exports on crop markets	Agribusiness Management	C	5	2
	10. Calculate marketing problems	Agribusiness Management	B	5	2