**Chapter 11 Reading Guide**

**Module 31**

**Vocabulary**

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| 1. Undernutrition | 2. Malnourished | 3. Food Security | 4. Food Insecurity |
| 5. Famine | 6. Anemia | 7. Overnutrition | 8. Meat |

**Module 32**

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| 1. Industrial Agriculture | 2. Energy Subsidy | 3. Green Revolution | 4. Economies of Scale |
| 5. Waterlogging | 6. Salinization | 7. Organic Fertilizer | 8. Synthetic Fertilizer |
| 9. Monocropping | 10. Pesticide | 11. Insecticide | 12. Herbicide |
| 13. Broad-spectrum pesticide | 14. Selective Pesticide | 15. Persistent Pesticide | 16. Nonpersistent Pesticide |
| 17. Pesticide Resistance | 18. Pesticide Treadmill | 19. Concentrated Animal Feeding Operation (CAFO) | 20. Fishery |
| 21. Fishery Collapse | 22. Bycatch |  |  |
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**Module 33**

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| 1. Shifting Agriculture | 2. Desertification | 3. Nomadic Grazing | 4. Sustainable Agriculture |
| 5. Intercropping | 6. Crop Rotation | 7. Agroforestry | 8. Contour Plowing |
| 9. Perennial Plant | 10. Annual Plant | 11. No-till Agriculture | 12. Integrated Pest Management (IPM) |
| 13. Organic Agriculture | 14. Individual Transferable quote (ITQ) | 15. Aquaculture |  |

**Module 31**

1. *Opening Story -* What principles does Salatin follow when running his farm & why has it attracted attention?
2. What has been the trend in world hunger in recent decades?
3. What is overnutrition, and what are its effects on individuals and societies?
4. Who is most at risk of food insecurity, what are its effects on individuals and society, and what can be done about it?
5. Which type of crop dominates human energy intake, accounting for 60% of our raw calories?
6. Even though the world produces enough total food to feed every human, why do undernutrition, malnutrition, and food insecurity persist?
7. How does a population's consumption of meat change as it develops? Why does this have large environmental impact?
8. *Working Towards Sustainability -* What are the advantages and disadvantages of BOTH annual & perennial crops? (pg 383)

**Module 31 Review**

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**Module 32 Review**

1. What major changes took place in farming practices during the 20th century?
2. In Figure 32.11, what types of food production require high energy subsidies? Low ones? Why do you think this is so?
3. Why does modern agriculture depend so heavily on fossil fuels?
4. What changes did the Green Revolution bring, and what were its positive and negative effects?
5. Why has production shifted from small-scale farms to large-scale farms in modern agriculture?
6. How do salinization and waterlogging of soil occur? What are the problems of each?
7. How are heavy usage of monocropping and pesticides linked? What are the problems with relying on this combo?
8. Why are CAFOs widely used, and what are the major environmental problems associated with them?
9. What has been responsible for dramatic overfishing in recent years, and what have been

the effects?

**Module 32**

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**Module 33**

1. Why is small-scale farming still common in many developing countries?
2. What are the goals of sustainable agriculture?
3. How can polyculture like intercropping, crop rotation, and agroforestry make agriculture more sustainable?
4. How do contour plowing and no-till farming help make agriculture more sustainable?
5. What types of strategies does IPM use, and what are its advantages and disadvantages compared to pesticide reliance?
6. Why is free-range meat (chicken, beef, etc) generally considered better for the environment than CAFO meat?
7. How can ITQs help address the tragedy of the commons in global fisheries?
8. How do the environmental advantages and disadvantages of aquaculture compare to current fishing methods?

**Module 33**

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**Chapter 11 Practice Exam**

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