

DOWNLOAD PDF LAB MANUAL TO ACCOMPANY THE SCIENCE OF AGRICULTURE

Chapter 1 : Laboratory Manual, Arranged to Accompany

He obtained a bachelor of science degree in agricultural education from Auburn University, a master's degree in agribusiness education from Alabama A & M, and a doctorate in vocational education (with an emphasis in agricultural education) from Virginia Polytechnic Institute and State University.

Spanish translations of the terms also appear in the glossary. May not be scanned, copied or duplicated, or posted to a publically accessible website, in whole or in part. Use the puzzle to introduce the lesson. Have the students write the meanings of selected words on the back of the handout. Have each student describe the events that led up to the invention that made its inventor famous. Class Activities and Projects 1. Discuss ways that farm work has changed during the last years. Identify several important tasks that must be done by farmers. Describe how each of those tasks was done years ago. Describe how farmers perform each of those tasks today. What scientific discoveries have contributed to greater efficiency in doing farm work today? Investigate ways that new and modern farming methods have contributed to opportunities in career fields other than agriculture. How have efficient farming methods benefited all the citizens of the United States? Using library materials, the Internet, or other scientific sources, learn about climates in the latitudes of 90, 60, and 30 degrees. Using the information you have obtained about these regions, determine what kinds of crops might be raised at each of these latitudes. Using the CourseMate resources, have students complete the matching exercise in Worksheet Describe how genetically altered crops have changed pesticide use. These findings should be no surprise considering that many genetic modifications have introduced pest resistance into some of our most widely used food plants. One such plant is the potato. This crop is highly vulnerable to the Colorado potato beetle, and an entire field can be destroyed by this pest in a very short period of time. The adult and immature forms of this beetle eat the stems and foliage and destroy the ability of the plant to engage in photosynthesis. The traditional treatment for these pests has been to apply pesticides to the crop. Potatoes that have been genetically modified to resist the beetles are able to produce a chemical that does not affect humans, but which poisons the beetles as they eat the foliage. The end result is that pesticides are no longer needed to control this pest in potato varieties that carry the resistant gene. Describe a career in environmental management, including work settings and responsibilities. However, specialists in air and water quality, soils, wildlife, fire control, automotive emissions, and factory emissions all help maintain a clean environment against tremendous population pressures in many localities. Helicopter, airplane, and satellite crews gather important data for scientific analysis to help monitor the quality of our environment. Individuals in environmental careers may work indoors or outdoors; in urban or rural settings; or in boats, planes, factories, laboratories, or parks. Careers range from laborer to professional. Environmental concerns are high on global agendas today as nations attempt to reduce global hunger and pollution. Later, a threshing device was added to the reaper, and the new machine was called a combine. The reaper cut and bundled the grain in the field. Today, grain is harvested with a machine called a combine, which cuts and threshes in a single operation. Later, in , a blacksmith named John Deere experienced the frustration of prairie soil sticking to the cast-iron plows of the time. Through numerous attempts at shaping and polishing a piece of steel cut from a saw blade, the steel moldboard plow evolved. That plow permitted plowing of the rich, deep prairie soils for agricultural production and launched the beginning of the John Deere Company. The cotton gin separated the cotton seeds from cotton fiber. This paved the way for an expanded cotton and textile industry. This effective fencing permitted establishment of ranches with definite boundaries. Depending on the length of your course, you may break the unit reading into segments or assign different items for homework each night. Note that the lab manual exercises are designed to be conducted in a group lab setting and require additional materials and preparation, and may be spread across units. Answers to Self-Evaluation A. Matching Group I 1.

Chapter 2 : Laboratory Manual to Accompany Chemistry

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