

# Compare / contrast map: Agriculture in the real world

**Concept 1**

**Concept 2**

**How are the concepts similar?**

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**How are they different?**

**Regarding what?**



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**Summarize:**

## Farming in the Real World

**Students:** Please read the hand out below with your partner and highlight or underline important facts about crop farmers and ranchers. Use these highlighted facts to fill in your compare/contrast map. Remember, each student must turn in his or her own farming map.

### Farmers and Ranchers

**Job Description:** Farmers and ranchers own and operate mainly family-owned farms. They also may lease land from a landowner and operate it as a working farm. The type of farm they operate determines their specific tasks. On crop farms – farms growing grain, cotton, other fibers, fruit, and vegetables – farmers are responsible for preparing, tilling, planting, fertilizing, cultivating, spraying, and harvesting. After the harvest, they make sure that the crops are properly packaged, stored, or marketed. Responsibilities of farmers and ranchers range from caring for livestock, to operating machinery, to maintaining equipment and facilities. The size of the farm or ranch often determines which of these tasks farmers and ranchers will handle themselves. Operators of small farms usually perform all tasks, physical and administrative. They keep records for management and tax purposes, service machinery, maintain buildings, and grow vegetables and raise animals. Operators of large farms, by contrast, have employees who help with the physical work that small-farm operators do themselves.

**Work Conditions:** The work of full-time farmers, ranchers, and agricultural managers is often strenuous; work hours are frequently long, and they rarely have days off during the planting, growing, and harvesting seasons. The rest of the year, they plan next season's crops, market their output, and repair machinery.

**Salary:** According to the U.S. Department of Agriculture, the average net cash farm business income for farm operator households in 2004 was \$15,603. This figure, however, does not reflect that farmers often receive government subsidies or other payments that supplement their incomes and reduce some of the risk of farming.

**Education Needed:** Growing up on a family farm and participating in agricultural programs for young people, such as the National FFA Organization or the 4-H youth educational programs, are important sources of training for those interested in pursuing agriculture as a career. However, modern farming requires increasingly complex scientific, business, and financial decisions, so postsecondary education in agriculture is important even for people who were raised on farms. The completion of a 2-year degree, or better, a 4-year bachelor's degree program in a college of agriculture, is becoming increasingly important for farm managers and for farmers and ranchers who expect to make a living at farming. A degree in business or farm management with a concentration in agriculture is important, but even after obtaining formal education, novices may need to spend time working under an experienced farmer. A small number of farms offer, on a formal basis, apprenticeships to help young people acquire such practical skills. Students should select the college most appropriate to their specific interests and location. All State university systems have at least one land-grant college or university with a school

of agriculture. Common programs of study include agronomy, dairy science, agricultural economics and business, horticulture, crop and fruit science, and animal science. A basic knowledge of accounting and bookkeeping is essential in keeping financial records, while knowledge of sources of credit is vital for buying seed, fertilizer, and other inputs necessary for planting. It also is necessary to be familiar with complex safety regulations and requirements of governmental agricultural support programs. Computer skills are becoming increasingly important, especially on large farms, where computers are widely used for recordkeeping and business analysis.

**Other jobs in agriculture:** Duties and working conditions vary widely, from raising plants in greenhouses, to harvesting crops and tending to livestock outdoors, to inspecting agricultural products at border crossings. Food scientists are also important agriculture professionals. Food scientists invent and inspect chemicals used in plant growth and are involved in pesticide study.

**Informational Resource:** Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2006-07 Edition*, Agricultural Workers, on the Internet at <http://www.bls.gov/oco/ocos285.htm> (visited November 20, 2007).