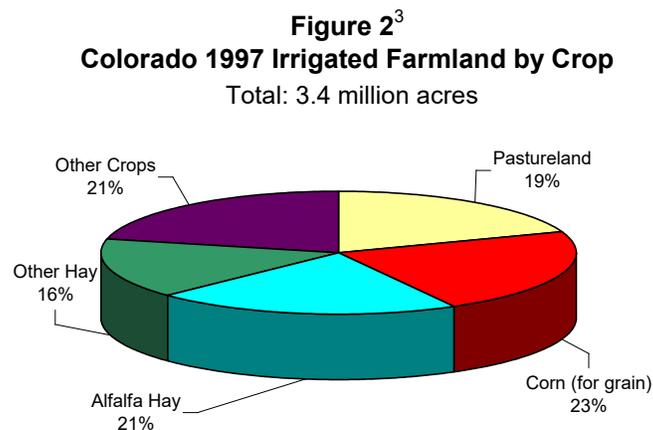
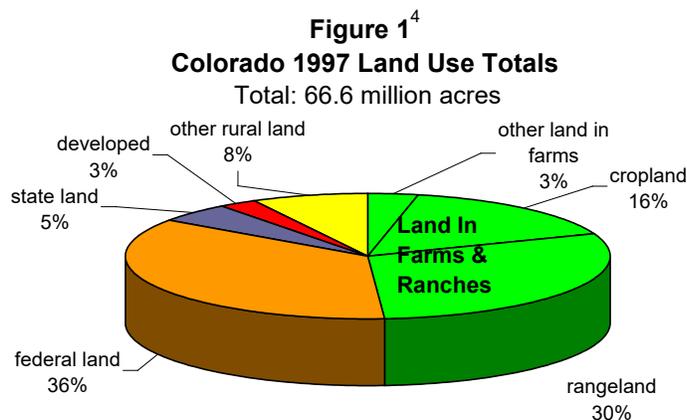


Agricultural Water Use in Colorado

Bryan Propp¹, James Leeper¹ and Dr. David Carlson², Colorado Department of Agriculture
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A Snapshot of Colorado Agriculture

- In 1997 there were more than 28,000 farms and ranches on 32.6 million acres - 49 percent of Colorado's 66.6 million acres of land. 10.5 million acres were cropland (16 percent of Colorado's land area); irrigated land, including irrigated pastureland, is 3.4 million acres (5 percent).³ Figure 1 displays federal and state land and other non-agricultural uses with land in farms.



- The market value of crops and livestock in 1997 totaled over \$4.5 billion in gross sales (\$1.3 billion in crops and \$3.2 billion in livestock)⁴. Agribusiness (inputs, production, marketing and processing) represents over 105,000 jobs and generates over \$15.8 billion annually for Colorado's economy⁵.
- In a recent CSU survey⁶, it was found that 80% of the state's population believes that agriculture is very important to the quality of life in Colorado. This survey also found that 85% of the population felt that it was very important to maintain land and water in agricultural production.

Agriculture and Growth

- Colorado has 1.7 million acres⁷ of prime agricultural land (a classification for high quality agricultural land that meets soil composition and slope requirements ideal for food and fiber production), about 2.5% of the state's total land base. Due to the semi-arid climate of the state, all the prime agricultural land in Colorado must be irrigated.
- Agricultural land is being converted to other uses at a rate of 140,000 acres/year (1987-1997). The rate of conversion has nearly doubled in the last five years to 270,000 acres/year (1992-1997). Uses of this land include urban and built-up land (28,000 acres/year); open space, parks, and wildlife habitat; and low density rural home sites and other non-ag uses of rural land.
- Colorado's current population is 4.4 million. According to the state demographer, this number is projected to increase to 6.5 million in 2025.
- Future patterns of growth will be shaped by the future of agricultural lands. Land in farms and ranches accounts for more than 85% of the privately-held undeveloped land in the state.

Agriculture's Dependence Upon Water

¹ Research Assistant, Colorado Dept of Agriculture, Resource Analysis Section.

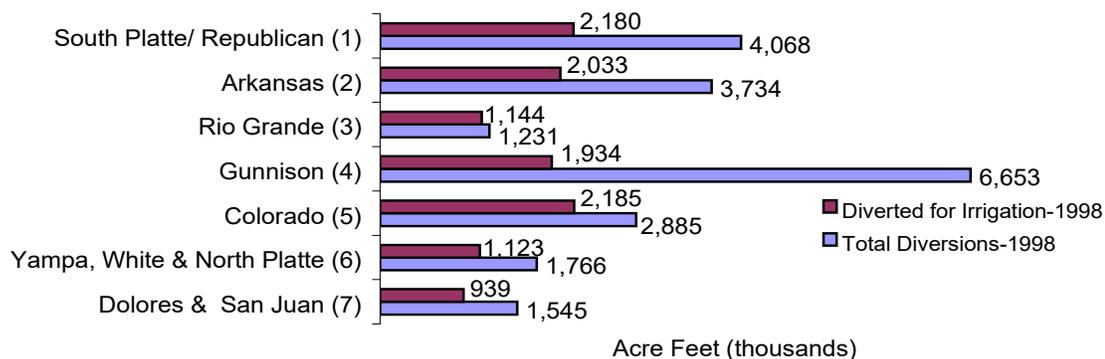
² Resource Analyst, Colorado Dept of Agriculture, Resource Analysis Section.

³ "1997 Census of Agriculture", National Agricultural Statistics Service (USDA).

⁴ "Tracking Agricultural Land Conversion in Colorado", Colorado Dept of Agriculture, Natural Resource Conservation Service (USDA), Colorado Agricultural Statistics Service (USDA), September 2000.

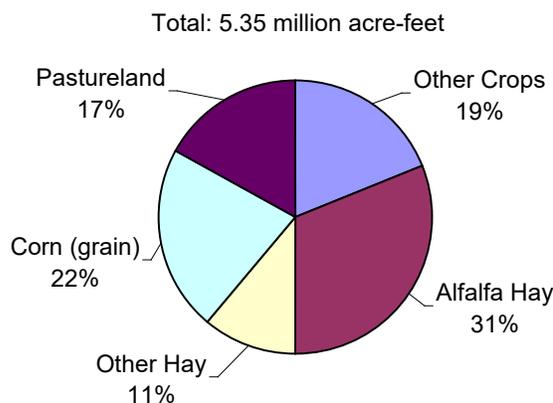
- Water use can be viewed in two ways. *Diversion* (or *withdrawal*) is the removal of water from any body of water by canal, pipe or other conduit. *Consumptive use* is a diversion with no return flow.
- **Figure 3** displays 1998 diversions from the seven river basins in Colorado. Total diversions were 21.9 million acre feet, with irrigation withdrawals accounting for 11.5 million acre feet or 52.8% of all water diverted⁸.

Figure 3
Colorado's River Basin Diversions in 1998



- USGS data⁹ indicates total consumptive use of 5.86 million acre-feet in 1995, of which 94% is due to irrigation (5.50 million acre feet).
- The value of crops produced in 1997 was \$1.3 billion³. Approximately three-fourths of this total value depended upon irrigation. These crops form the basis for Colorado's livestock industry, which produced \$3.2 billion in sales in 1997⁴.
- The amount of land under irrigation has remained fairly stable at around 3.4 million acres³. An estimated 20 percent or more of irrigated acreage is dependent upon finite groundwater sources, such as the Ogallala Aquifer in eastern Colorado.

Figure 4
1995 Colorado Net Irrigation Requirements



- Preliminary studies by the Colorado Department of Agriculture indicate that the state's total net irrigation requirement in 1995 was 5.35 million acre-feet (assuming 1995 precipitation was normal).

This figure is remarkably close to the 1995 irrigation consumptive use figure cited by USGS⁹. These studies provide county-level estimates of net irrigation requirements for each irrigated crop. **Figure 4** displays the breakout by crop category for the state.

⁵ "The Contribution of Colorado's Agribusiness System to the State's Economy in 1997", Colorado State University, Dept of Agricultural and Resource Economics, July 2000.

⁶ "Public Attitudes About Agriculture in Colorado", Colorado State University, Fall 2001.

⁷ "1997 National Resources Inventory Report", Natural Resources Conservation Service.

⁸ "River Basin Fact Sheets", Colorado Water Conservation Board, Colorado Division of Water Resources, January 2000

⁹ "Estimated Use of Water in the United States in 1995", U.S. Geological Survey Circular 1200

