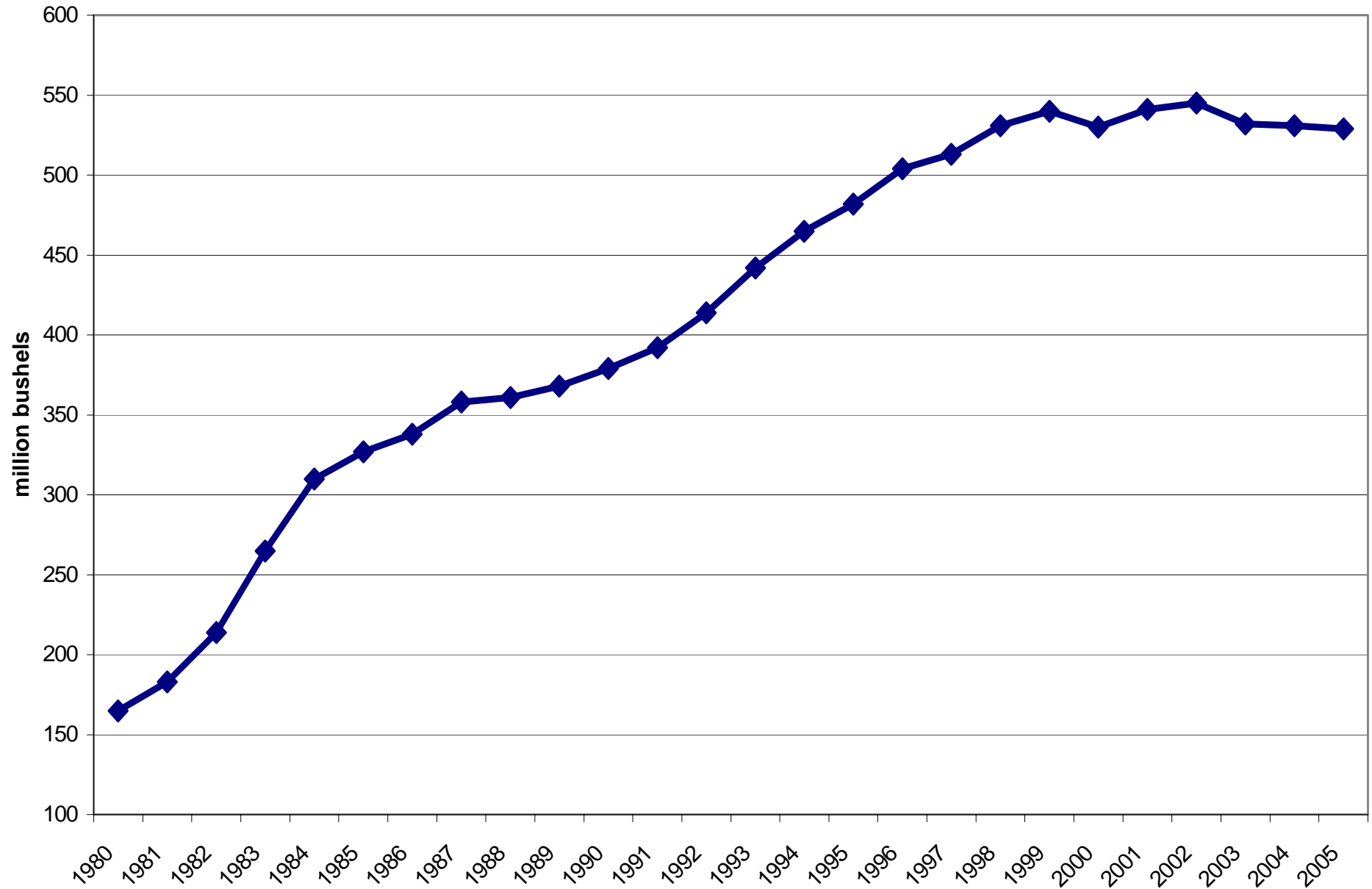


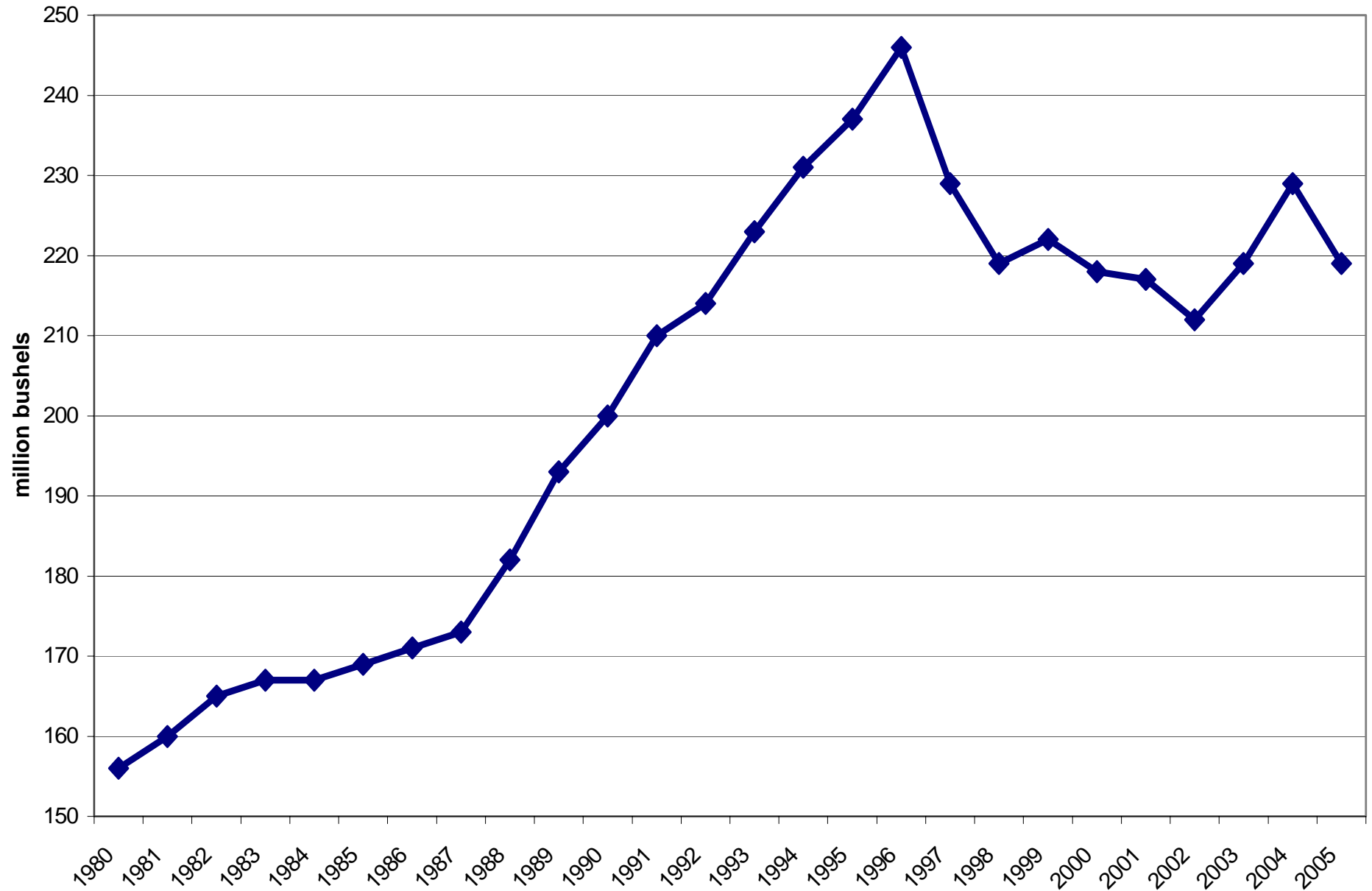
Industrial Use of Corn

- Fastest growing area of demand for US corn
- Over 4000 different uses of corn in industrial processes (includes food uses)
- The fastest growing use category currently is fuel alcohol
- Industrial use of US produced corn now accounts for 26 percent of total consumption.
- Results in 5.3 billion dollars paid to farmers at current price levels

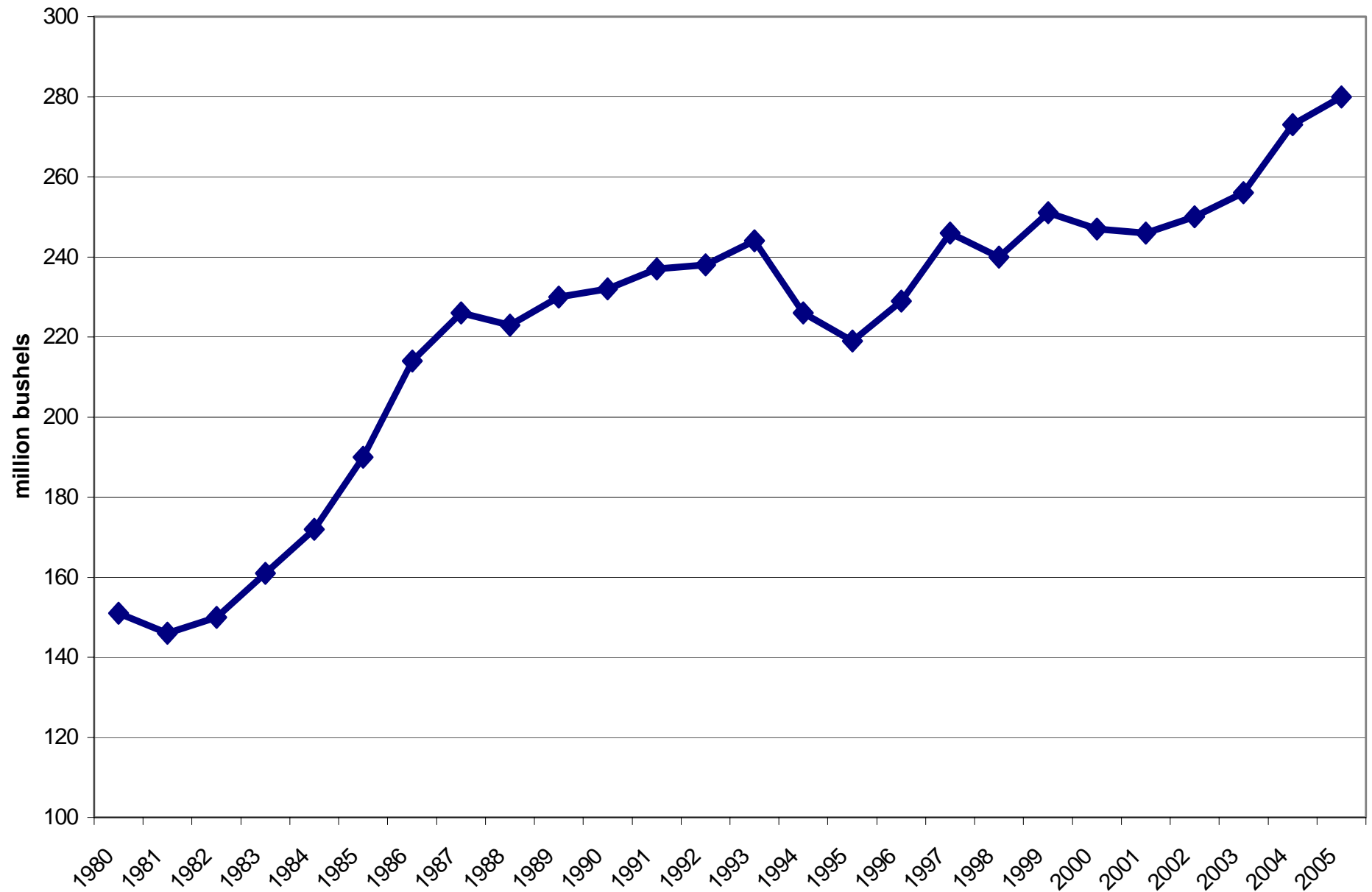
High Fructose Corn Syrup



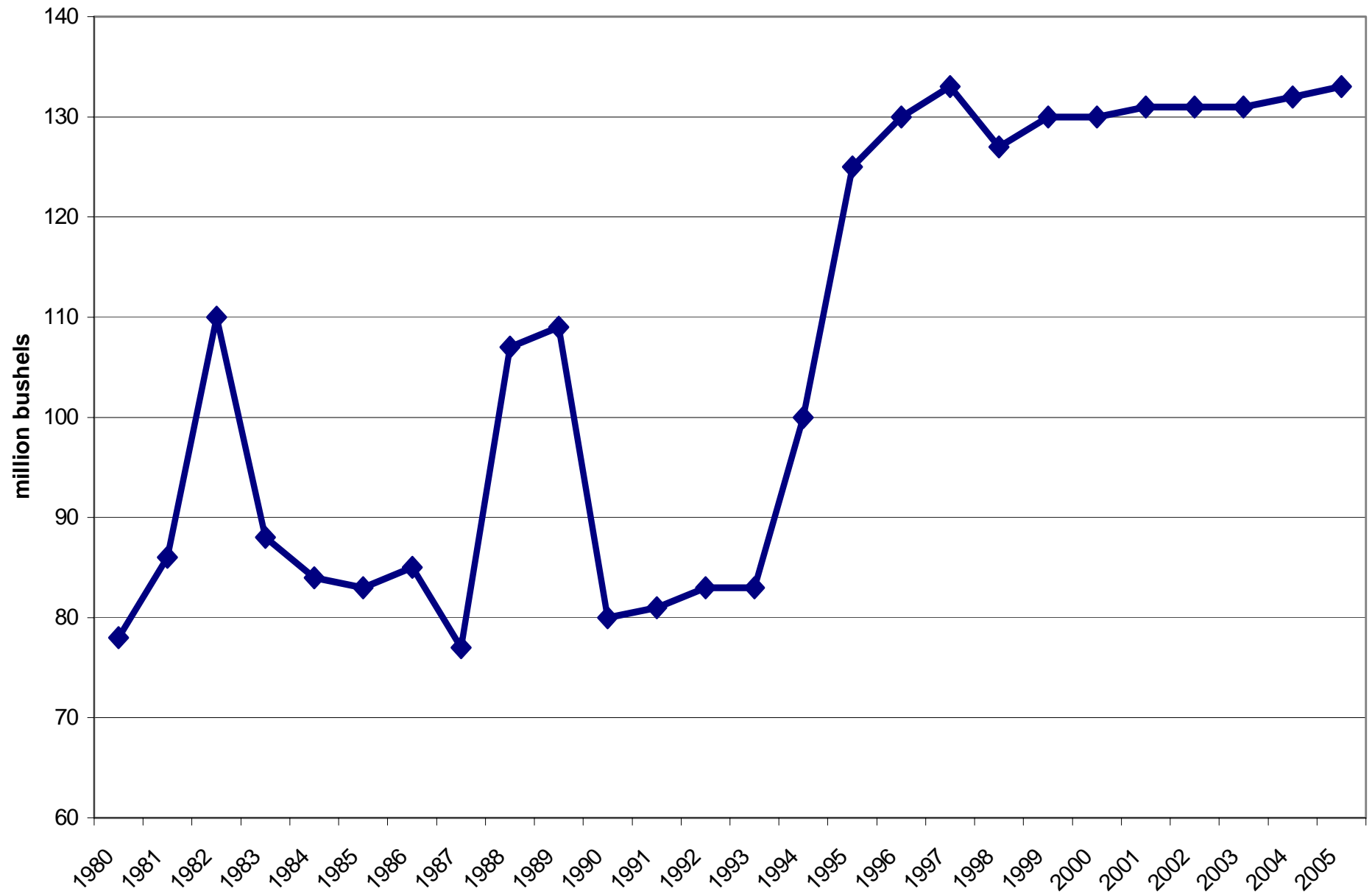
Glucose and Dextrose



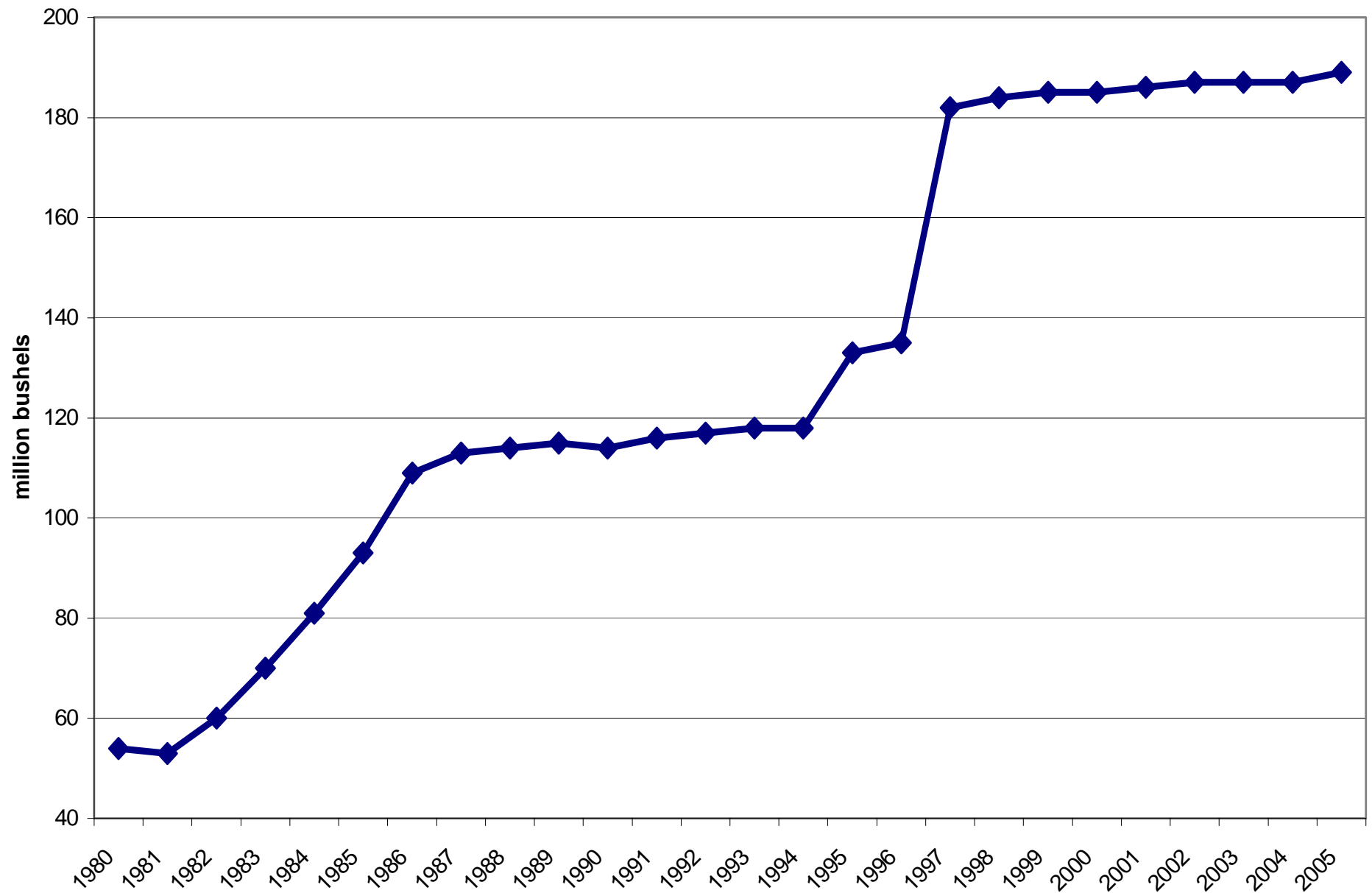
Starch



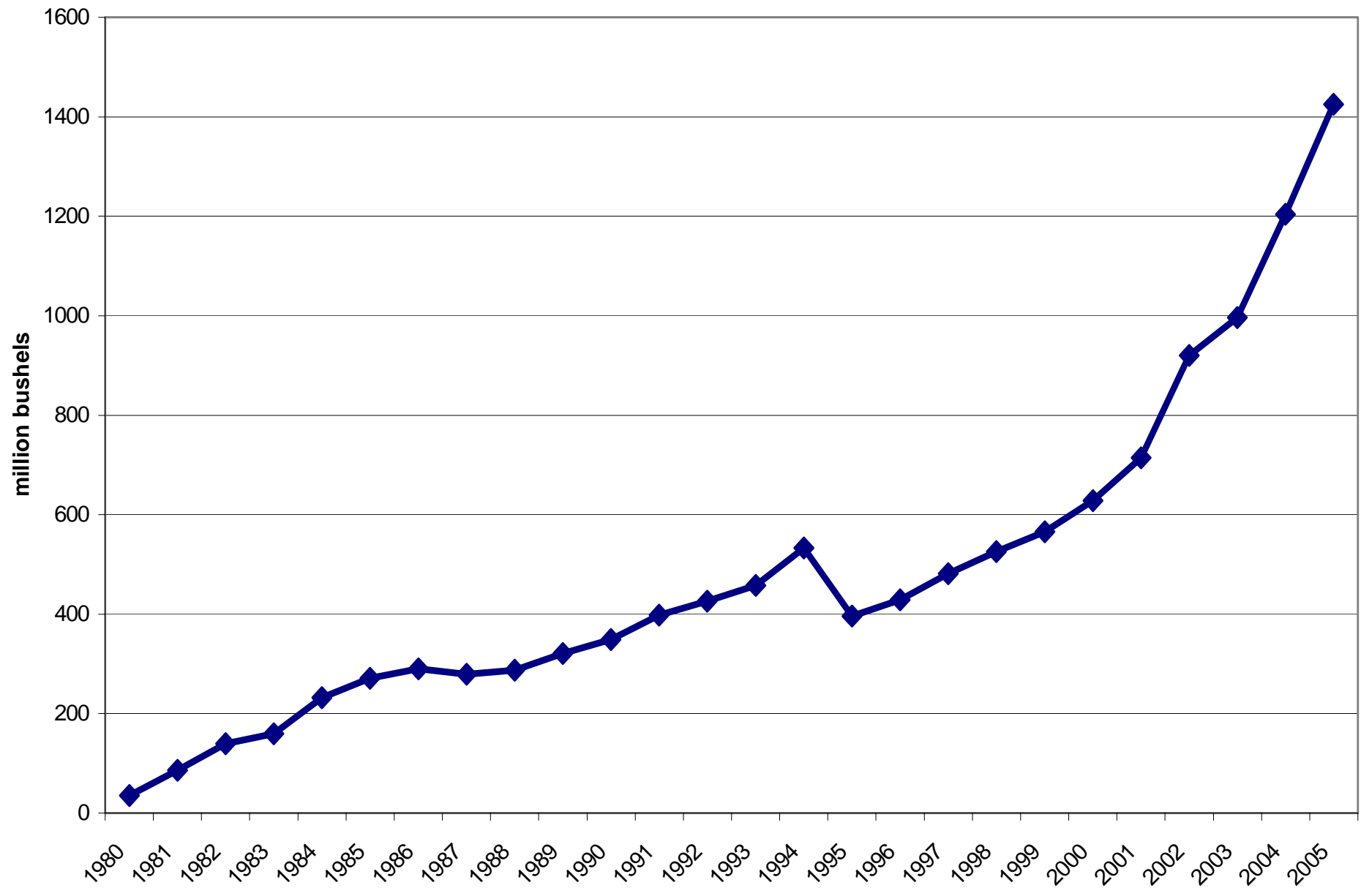
Beverage Alcohol



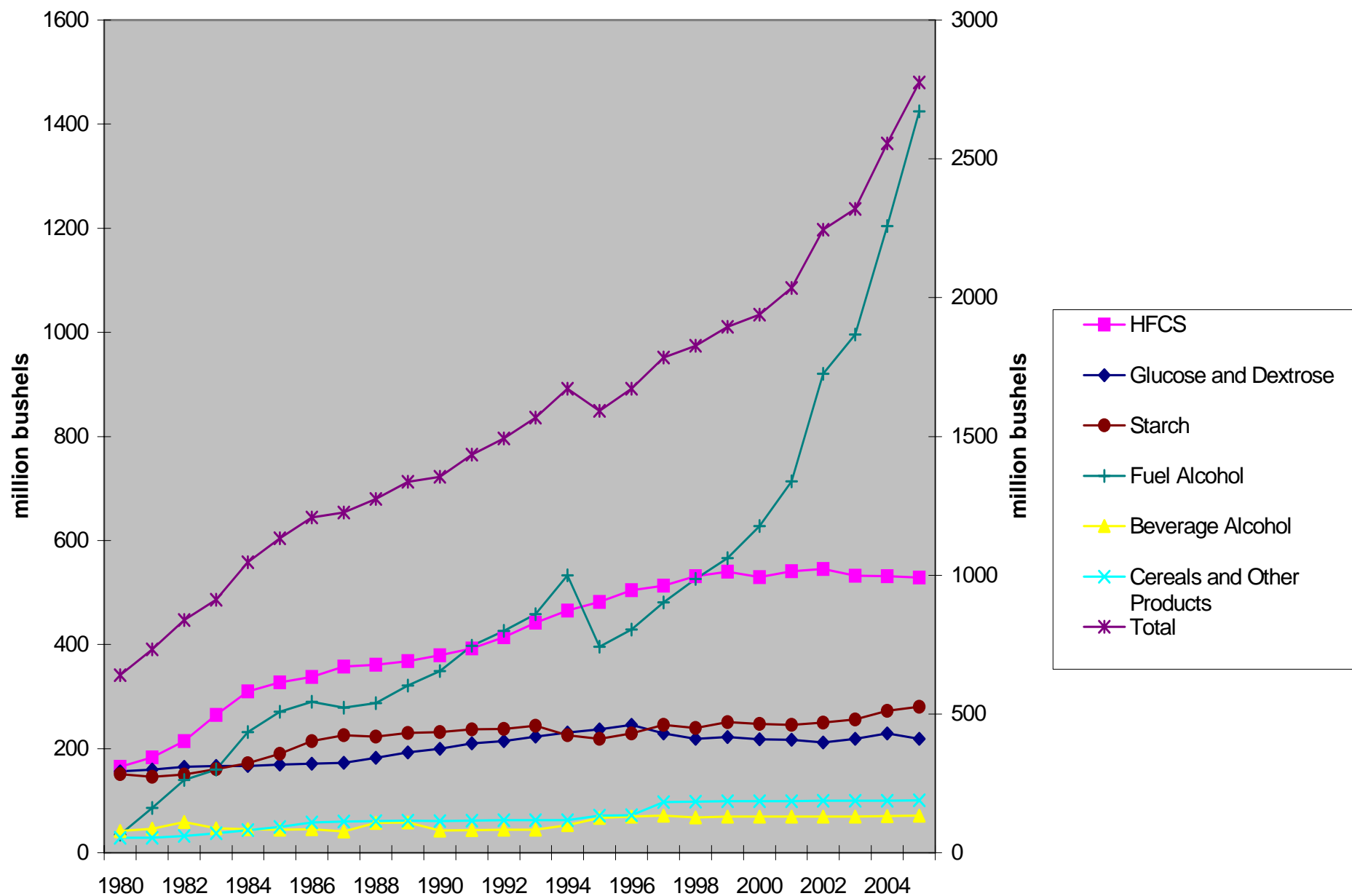
Cereals and Other Products



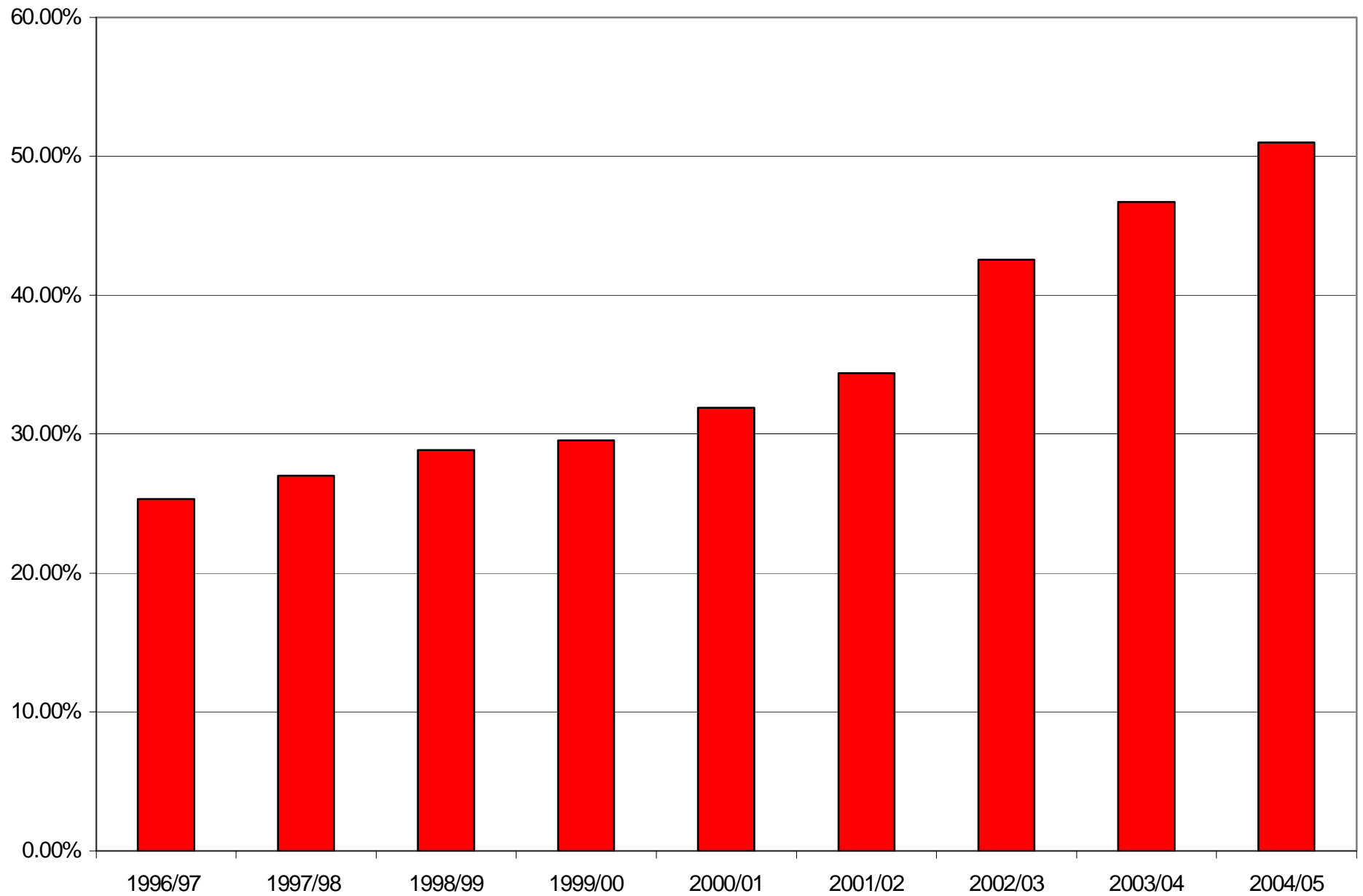
Fuel Alcohol



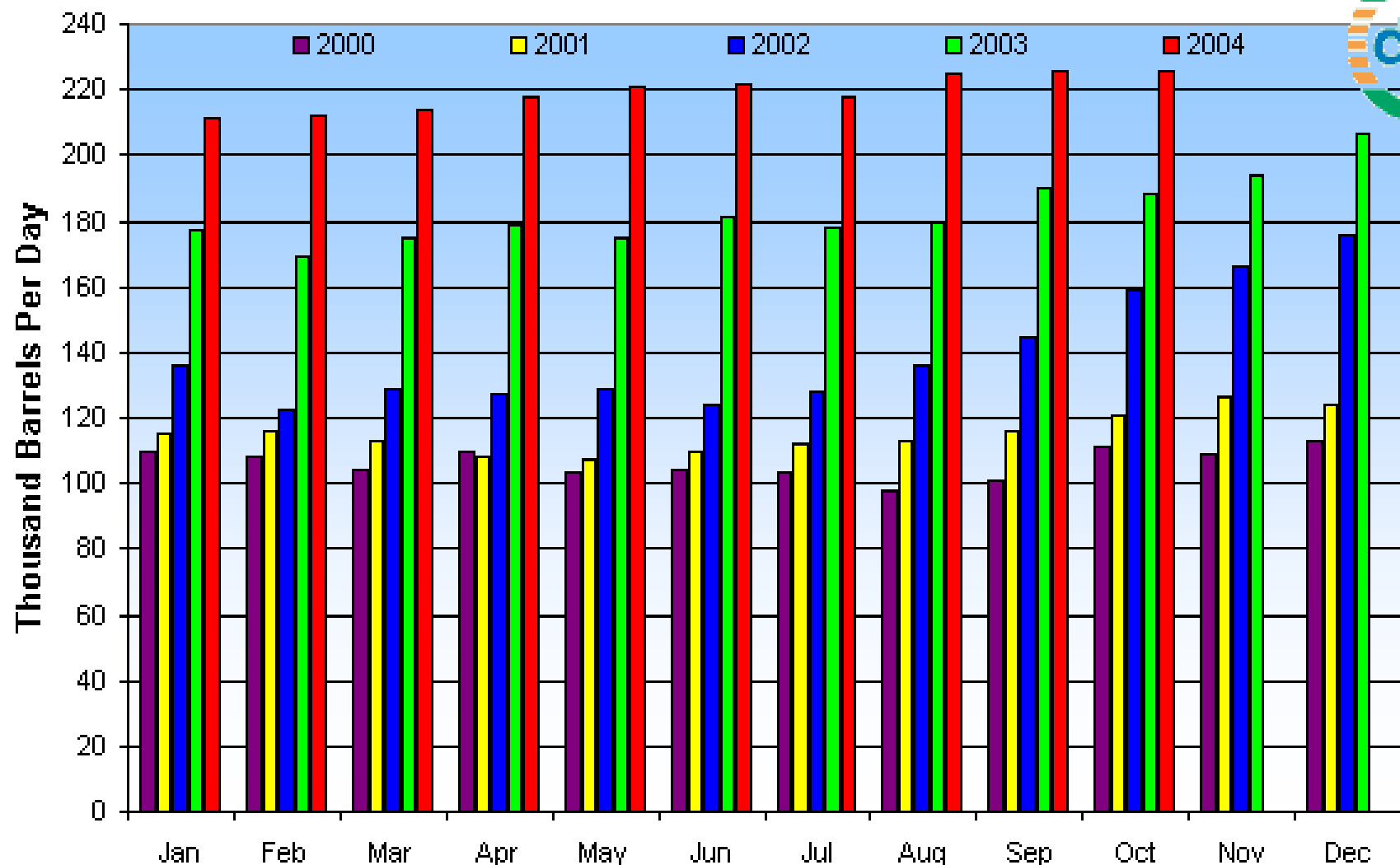
Industrial, Food, and Seed Use of Corn



Corn Use in Ethanol as a Percent of Total Industrial, Food, and Seed Use



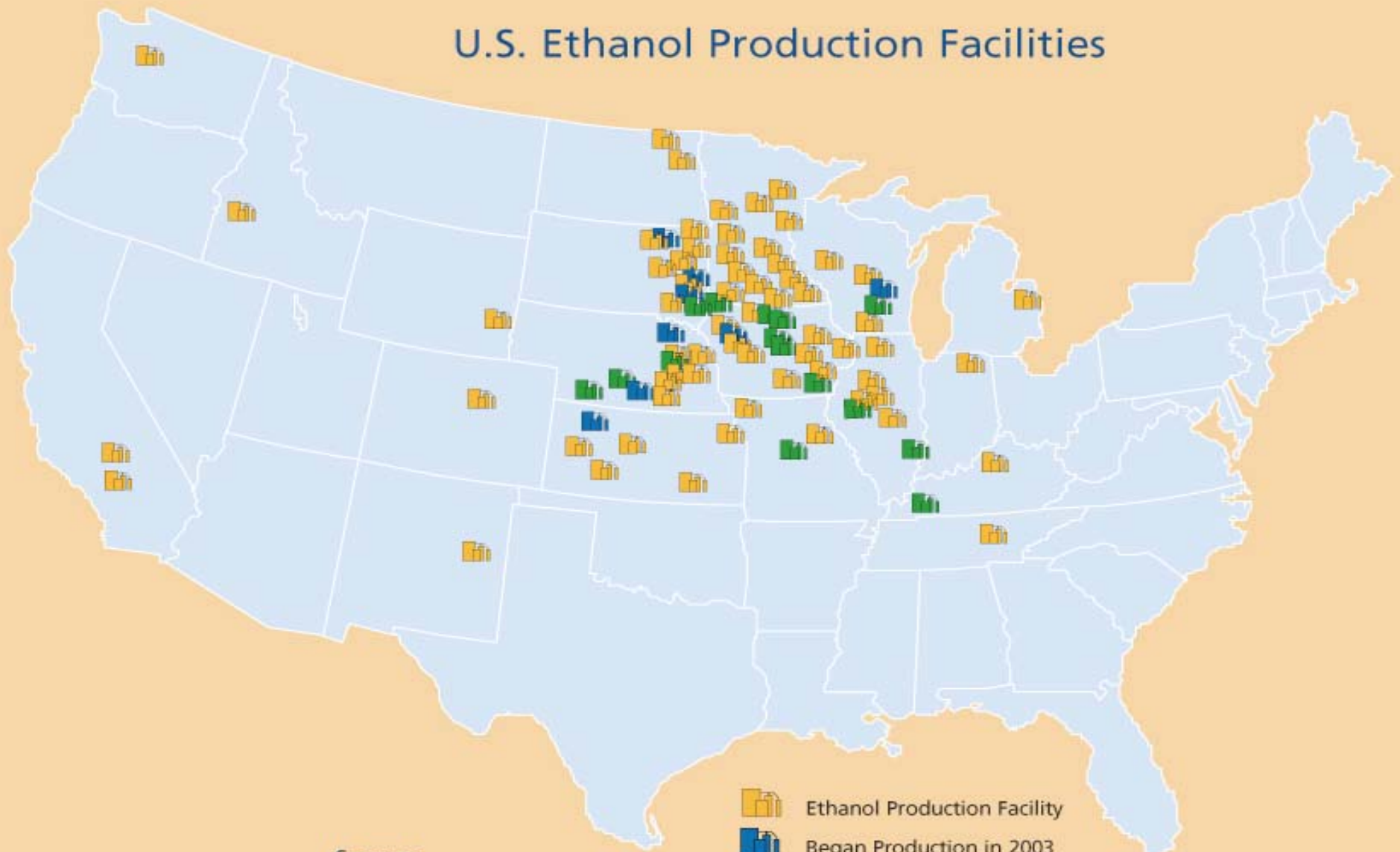
Total U.S. Ethanol Production






The U.S. ethanol industry set a monthly production record for October of 226,000 barrels per day (b/d), according to data released by the U.S. Energy Information Administration (EIA). This number ties the all-time monthly record set in September of this year. Compared to last October, production was up 20 percent when 188,000 b/d of ethanol were produced.

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U.S. Ethanol Production Facilities



Source:
Renewable Fuels Association

-  Ethanol Production Facility
-  Began Production in 2003
-  Under Construction

Current Uses

- The largest growth area is currently in alcohol fuels.
- However, in the next 5 to 7 years, growth in this category is likely to flatten, as has been the case in other use categories.
- An important factor in determining the growth path of corn based ethanol production in the next few years is federal energy policy.
- Even with pro-active policy, however, it is likely that other feed stock sources will compete more aggressively with corn as an ethanol feedstock.

New Uses

- Viscosity modified starch –used in adhesives, wall paper paste, and as a coating on paper and cardboard
- Oil – biodegradable lubricant for use in polyurethane processing equipment
- Absorbent corn cob product. For use with oils, coolants, solvents, and water. More absorbent than clay.

Conclusions

- Industrial demand for corn will continue to expand, but growth rates four to five years from now will depend on the commercialization of technical innovations just now developing.
- As new technologies become available, demand for specific traits, with commensurate price incentives, will likely develop.
- This will provide opportunities for producers willing to produce for specific end markets.