

Energy, Agriculture, and Water Quality

Prepared by D.E. Clay,

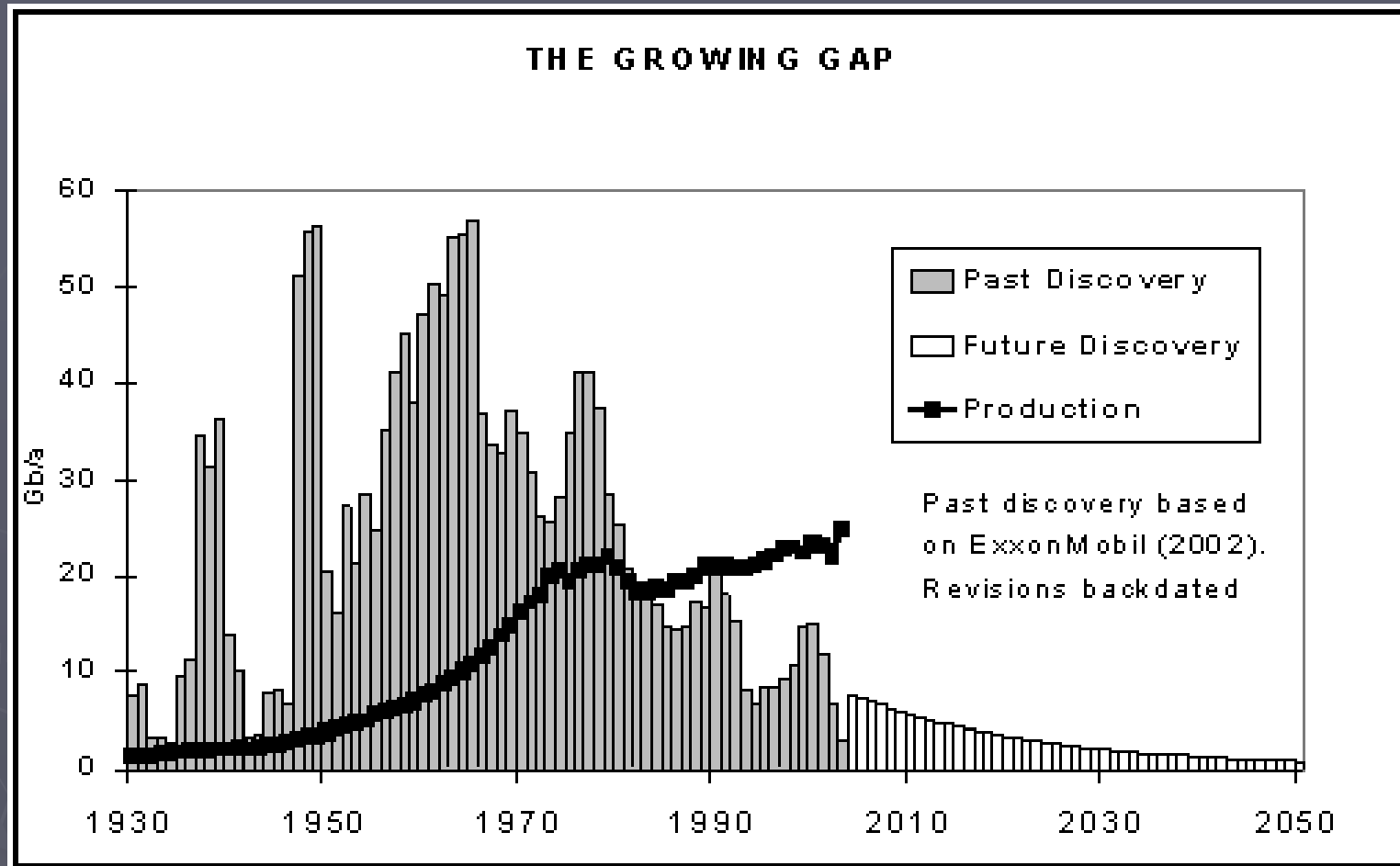
Planning group

- ▶ David Clay
- ▶ Tom Simpson
- ▶ Gerald Miller
- ▶ Robin Shepard
- ▶ Ginger Paige

Questions are becoming more urgent

► Global factors

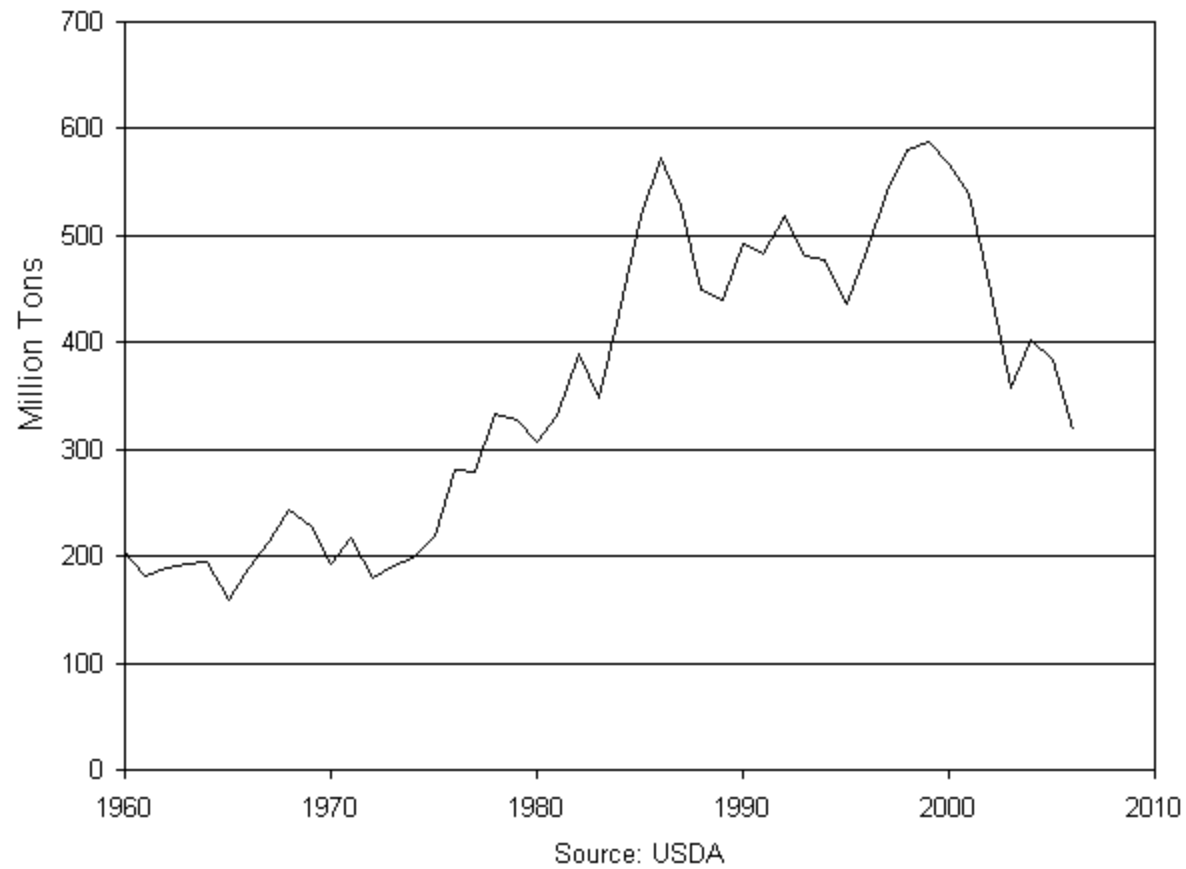
- Oil supplies
- Land used for production
- Linear yield increases
- Increased demand
- World wide supply



Oil consumption exceeds new find

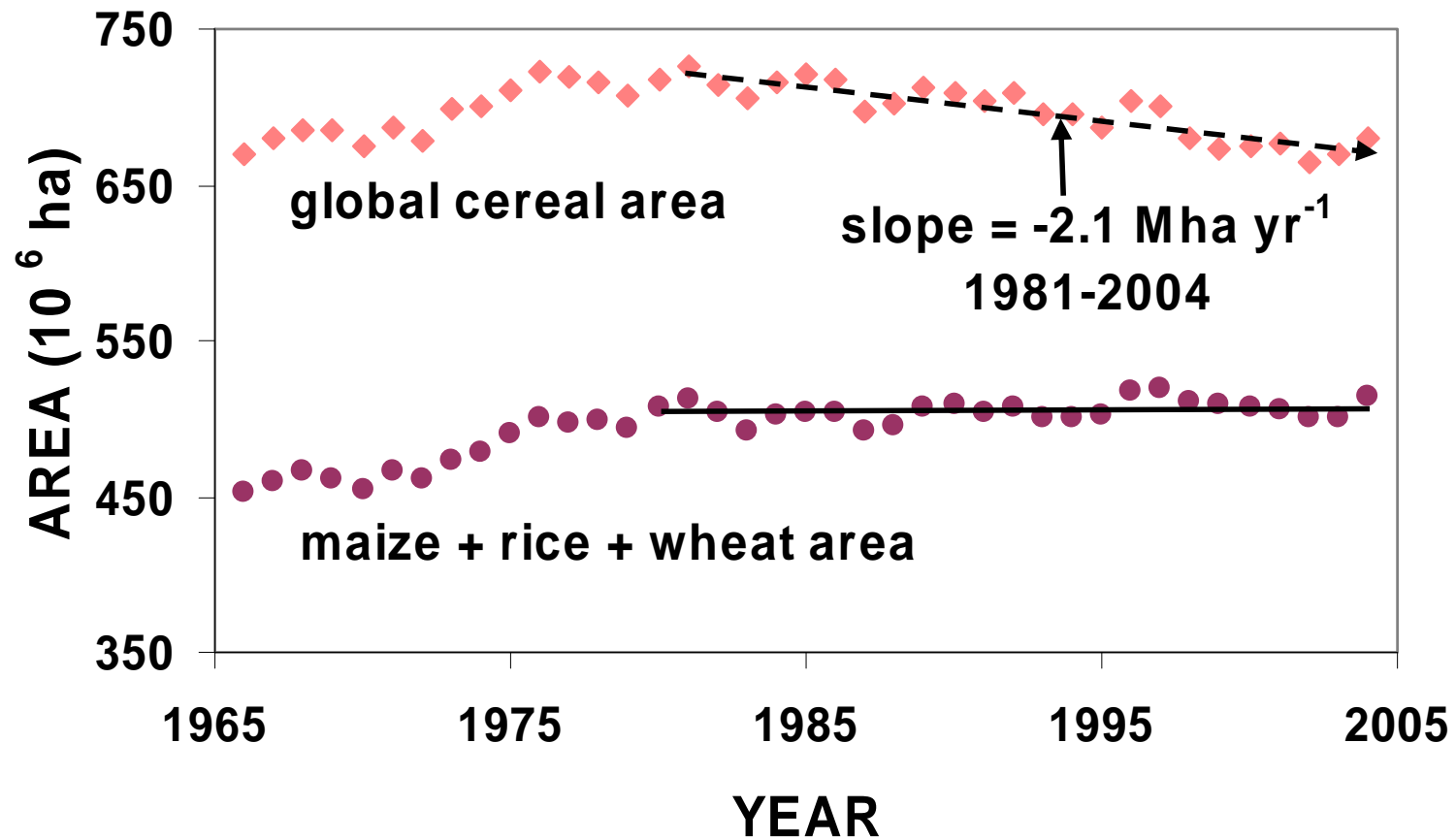
<http://www.inforse.org/europe/dieret/Oil%20peak/oil%20peak.html>

World Grain Stocks, 1960-2006

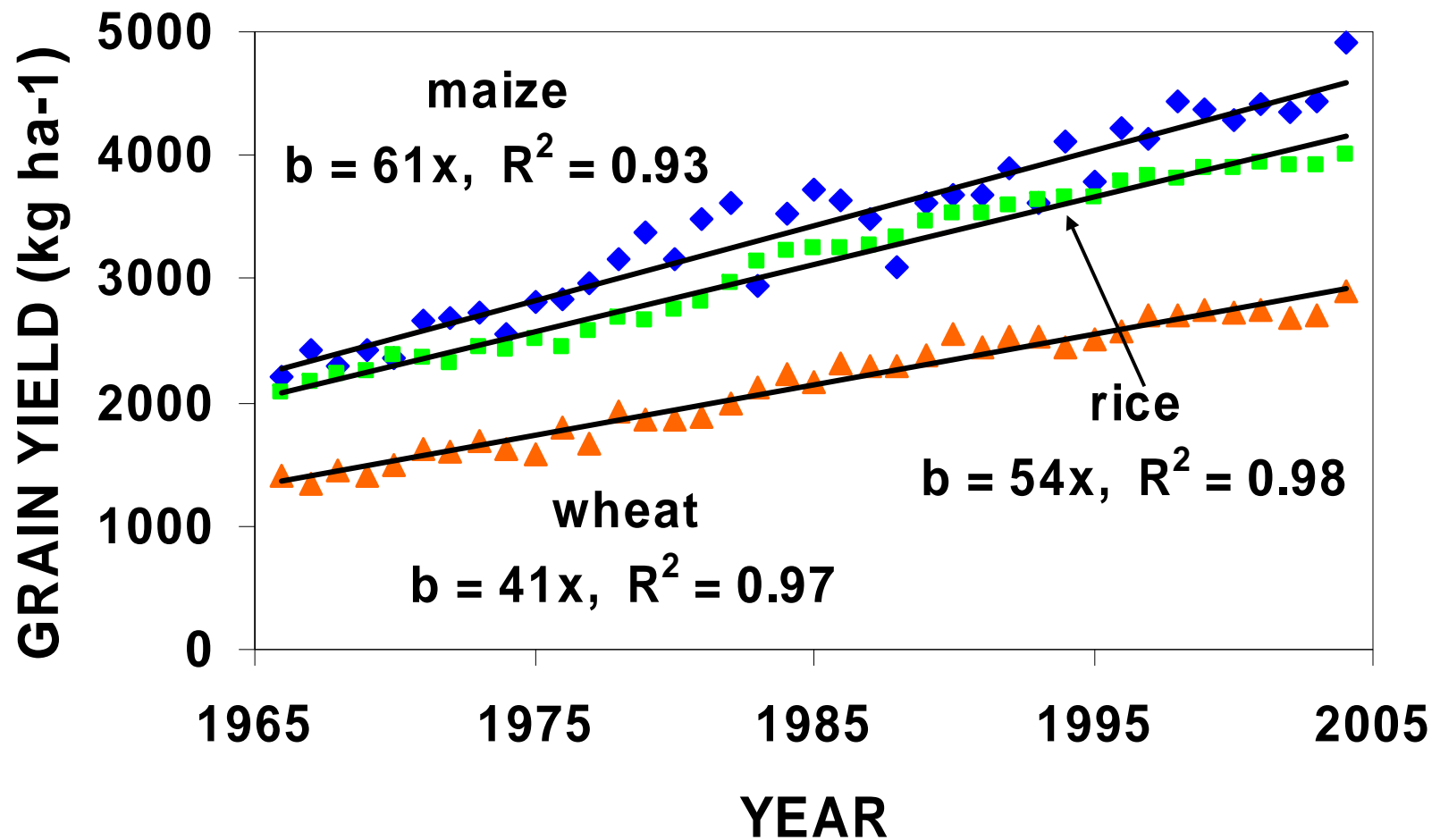


http://www.earth-policy.org/Indicators/Grain/2006_data.htm

Trends in Global Area Planted to Cereals is decreasing, 1966-2004 (from Cassman, 2007)



Global Cereal Yield Trends, 1966-2004



These pressures have increased the
selling prices of commodities

Management has changed

Mail Survey of South Dakota Producers with CRP Contracts

Our project funded a survey to find out what people are doing in South Dakota.

Collaborators were

Dr. L. Janssen, N. Klein, and G. Taylor

Survey Questions

- I. CRP Enrollment Factors
- II. CRP Future Land Use Plans
- III. CRP, Grass, and Livestock
- IV. Crop Management and CRP
- V. CRP and Environment
- VI. General Characteristics of Respondents

CRP Survey Responses

- ▶ 810 responses (33%), 750 with CRP lands
- ▶ Farming is major occupation of one-half of CRP respondents; retirement or off-farm jobs is other half.

Future Land Use Plans for CRP (percent of CRP acres)

67% of the respondents indicated that they most likely will not be renewing their CRP contracts.

This change in management has the potential to have huge changes in management

Symposium

- ▶ Barbara Carney, National Energy Technology Laboratory;
- ▶ Robin Shepard, University of Wisconsin;
- ▶ Harold Bergman, University of Wyoming Ruckelshaus Institute;
- ▶ Tom Simpson, University of Maryland.