

Distribution
of Benefits
& Other Issues



In Agricultural Research

Daryll E. Ray

University of Tennessee

Agricultural Policy Analysis Center

Discussion Topics

- Nature and Structure of Agricultural Research
 - In the Recent Past
 - What Has Changed?
 - The Future
- Public Policy Issues in Research

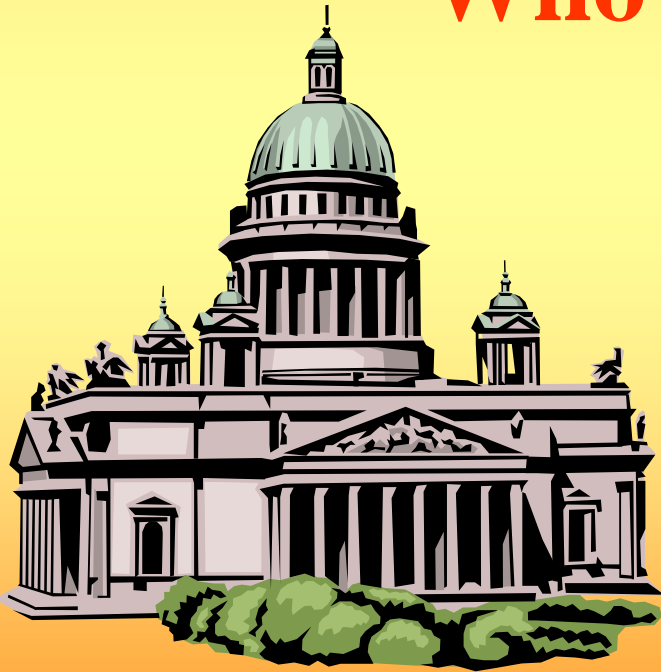
Questions in Agricultural Research

- **Who** pays for it?
- **Who** is the clientele?
- **What** will be researched?
- **Who** is going to do it?
- **Who** receives the benefits?



Not long ago the answers to these questions were obvious

Who pays for it?



- Federal Government
- State Government
- Private

Not long ago the answers to these questions were obvious

Who is the clientele?



- Farmers
- Consumers

Not long ago the answers to these questions were obvious

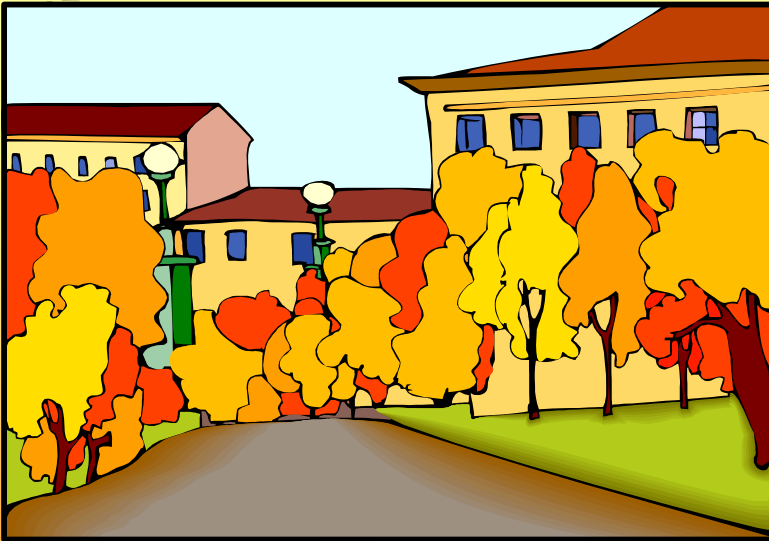
What will be researched?



- Basic Research
- Applied Research
- Production
- Marketing/Policy

Not long ago the answers to these questions were obvious

Who is going to do it?



- Agricultural Experiment Stations
- Federal Research Laboratories
- Private

Not long ago the answers to these questions were obvious

Who receives the benefits?



- Farmers -
Initially
- Consumers -
Ultimately

NOW

The What and Who Questions Have Different Answers



Why?

What has
changed?

Things that have changed



- Intellectual Property Rights for Biological Inventions
- Public Private Collaboration
- Increased Interest in Environment, Health and Food Safety

Things have changed

Intellectual Property Rights



- 1970 – Certification of Varieties
- 1980 – Biological Patents - Supreme Court Decision
- 1980 Federally Funded Research Could be Patented and Licensed – Bayh-Dole Patent Policy Act
- 1985-87 BioTech Patents Permitted

Things have changed

Increased Public Private Collaboration



- 1980 & 1986 - Allowed Direct Collaboration Between Government and Private Sectors (CRADA)
- Changes in Intellectual property Rights
- Governmental Budgetary Constraints

Now the questions have DIFFERENT ANSWERS

What will be researched?

Public and Private Partnerships

- Bio-Tech, Genetics
Related
- Other Areas with
Profit Potential

Sole Public Funding

- Environmental
- Natural Resources
- Food Safety
- Health
- Traditional

Now the questions have
DIFFERENT ANSWERS

Who is the client?



- Farmers
 - Which Farmers
- Consumers
- Private Sector
Funding Providers

Now the questions have DIFFERENT ANSWERS

Who are the beneficiaries?

- Under Perfect Competition
 - Farmers
 - Consumers
- Under Oligopolies and Oligosponies
 - Input Suppliers, Farmers, Processors, Consumers
- With Intellectual Property Rights
 - Rights Owners May Appropriate Additional Benefits

Public Policy Issues

- Will Incentives for Public/Private Research Increase Research?
- Who Will Capture the Benefits?
- Will Ownership Rights Reduce the Free Exchange of Information and Blunt Long Term Advances?

Public Policy Issues

- Will Research Programs Become Disproportionately Leveraged Toward the Needs of Private Industry Rather than the Broader Interests of Farmers and Consumers?
- Will Universities Be Diverted into Activities that Are Not Compatible with Their Mission?