Technology and
Agriculture
Economic Impacts of
Advancing Technology
 

How does technological innovation
impact agriculture?
 Major Technological Advancements in
Agriculture
 Mechanization
 ...

 Technology Impacts the Supply of
Agricultural Products
 Supply Shifters
 Prices of Related Goods
 Corn – Soybeans
 C...

How does technological innovation
impact agriculture?
 What Does that Supply Shift Look Like?
Supply
Price
Quantity
Suppl...

Supply and Demand Elasticities
 Demand Elasticity for Agricultural Products
 Inelastic Demand, Why?
 What does that mea...

Supply and Demand Elasticities
 Supply Elasticity for Agricultural Products
 Short Run
 Intermediate Run
 Long Run
Sup...

New Technologies in the Livestock
Industry
 Cloning
 The ability to make an exact duplicate animal
with the same genetic...

The Case for Beef Cattle
Supply of Beef
Demand for Beef
Price of Beef
Quantity of Beef
Supply1 of Beef
Original Price
New ...

What about the market for Steers?
Supply of Steers
Demand for Steers
Price Steers
Quantity Steers
New Supply of Steers
 

Nutrient Requirements for Heifers and Steers
0
10
20
30
40
50
60
550 1200
ThousandsofMCalariesrequiredtoreachliveweight
St...

And the market for Heifers?
Supply of Heifers
Demand for Heifers
Price of Heifers
Quantity
New Supply of Heifers
 

Price Differential Between Steer and Heifer Calves
0
20
40
60
80
100
120
74
80
86
92
Year
$percwt.
Heifers Steers
 

Price
Quantity
The Technological Treadmill Theory
Supply
Demand
How does technology affect
the total revenue of the farmer...

The Technological Treadmill Theory
Supply
Demand
Price
Quantity
When supply increases from the
technological change, what
...

The Technological Treadmill Theory
Supply
Demand
Price
Quantity
S 1
Supply has increased and Total Revenue
changes from th...

The Technological Treadmill Theory
Supply
Demand
Price
Quantity
S 1
The red shaded region is a loss in
total revenue and t...

The Technological Treadmill Theory
Supply
Demand
Price
Quantity
S 1
Why does this happen?
Inelastic demand of agricultural...

Emerging Technologies in Production
Agriculture Over the Last Decade
 First Generation Technologies
 Biotechnologies tha...

Biotechnology and the Agricultural
Marketing System
 How is the marketing system going to handle
new products that used t...

Other Potential Impacts From
Biotechnology in Agriculture
 This impact on the marketing system could
create opportunities...



 Significance of technology in agriculture is increasing
day by day.
 With improved technologies, we can have a high cro...