



SUSTAINING A GROWING WORLD

80 Years of Evolution in North American Fertilizer and Agriculture



agrium history - summary

Agrium

where the future is growing

1931 Cominco Ltd. enters fertilizer business	1954 Sheritt Gordon Fertilizers enters fertilizer business	1969 Vanscoy Potash Operations opens	1983 Fort Saskatchewan Alberta plant opens	1993 Cominco Fertilizers Ltd. trades on TSE as separate company	1994 Crop Production Services (CPS) acquired	1995 Cominco Fertilizers Ltd. changes name to Agrium Inc. Argentina Farm Centers open	1995 Western Farm Services (WFS) acquired Nu-West Industries acquired	1996 Viridian (Sheritt) fertilizer assets acquired Agrium listed on NYSE	1999 Kapusikasing Phosphate Mine begins production
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2000
Profertil S.A. comes on stream

Unocal nitrogen fertilizer operations acquired

2004
Astaris Production LLC assets (Nu-West's Conda, Idaho phosphate operation) acquired

2005
Western Canadian fertilizer distribution assets (Engro) from Imperial Oil acquired

2006
Nu-Gro acquired

Royster-Clark acquired

Pursell Technologies Inc. acquired

2007
19.6 percent equity in Hanfeng Evergreen Inc. acquired

32 locations from Archer Daniels Midland (ADM) acquired

2008
United Agri Products (UAP) acquired

Beijing office opened

70 percent equity in Common Market Fertilizers S.A. (CMF) acquired

2008
Agronomics Division of Turf Care Products Canada Ltd. acquired

26 percent equity in the MISR Oil Processing Co., S.A.E. (MOPCO) of Egypt acquired

2009
Agrium Retail consolidates all North American operations under Crop Production Services (CPS)

24 retail outlet locations acquired from Agrilance

2010
33 retail outlets established in Western Canada to create Crop Production Services (CPS) Canada

For a more comprehensive overview of Agrium's History, please visit: www.agrium.com

Agrium Is.....

**A Leading Producer of
NPK Products: 8 MMT
Capacity**

**The Largest Global Ag
Retailer: Close to 1,300
Locations**

**The 3rd Largest
Nitrogen Producer
Globally**



**A Major Global Fertilizer
Distributor: 5 MMT
Annual NPK Volumes**

**A World Leader in
Innovative Controlled-
Release Fertilizers**

The Early Beginning

1882 – “some prairie soils appear to have inexhaustible fertility”

1895 – “drilling un-plowed land keeps stubble on surface”

1914 – “growing of wheat alone and summerfallow every third year introduces weeds, lowers fertility and risks soil degradation”

The Early Beginning

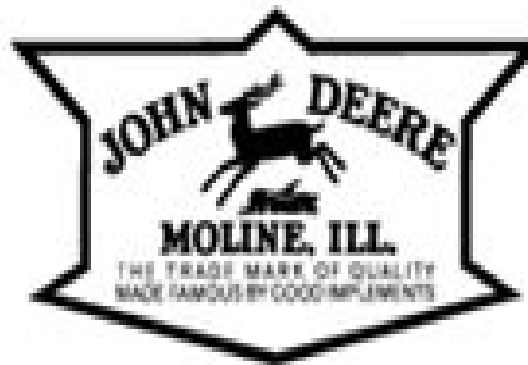
Baveye, et al., 2011

Nov 11, 1933 – black blizzard swept through South Dakota, causing some farms to lose all topsoil in one day

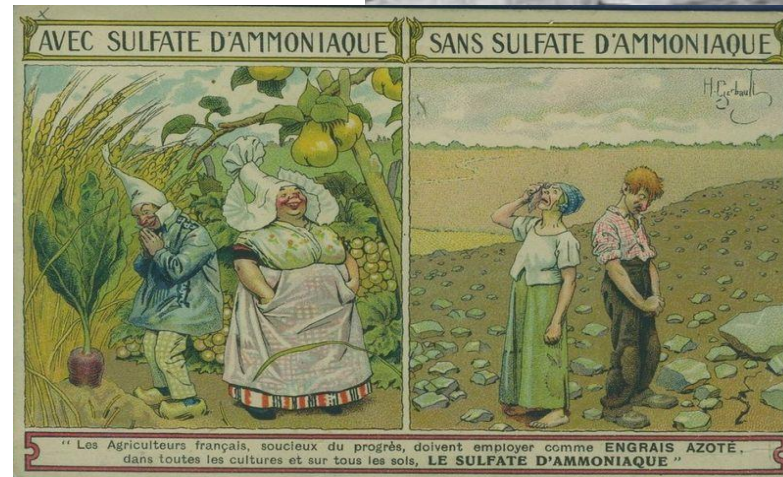
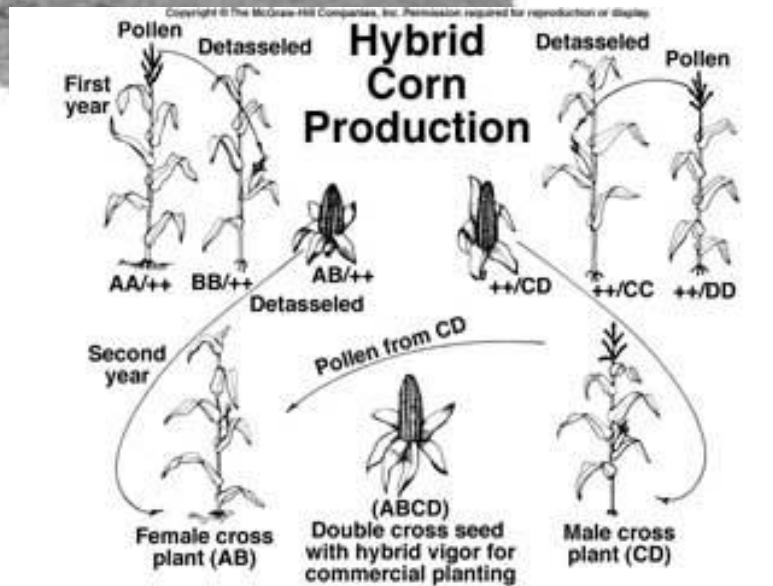
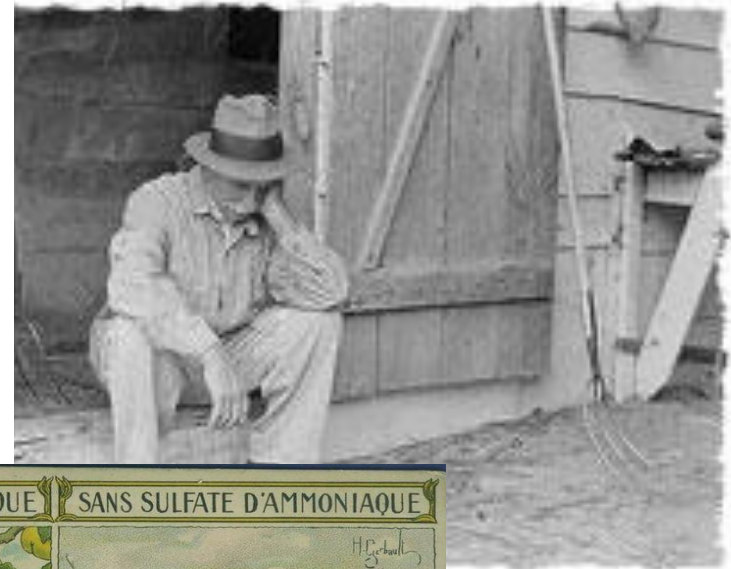
May 9, 1934 – high winds moved through plowed and over-grazed lands of Montana, Wyoming, and the Dakotas, moving an estimated 300 million tons of topsoil and carrying it eastward, shredding crops, killing livestock and choking people

May 10, 1934 – Buffalo fell dark at noon

April 14, 1935 – “Black Sunday” : largest dust storm on record covered 5 states from Dakotas to Amarillo, TX...people mere feet apart could not see each other



1936



The 1930's

- Dust bowl era
- One farmer feeds 10 people
- Ammonia produced
- Rubber tired tractors appearing
- Commercial fertilizer use @ 7.2 million tons
- Hybrid corn @ 13% of corn acres
- Rust resistant wheat available



Bank, Fairfield, Montana. FSA



DEAR MR. & MRS. T. T. A. 233
LINCOLN, NEBR. FALL

Nebraska Farmer

UNIVERSITY OF NEBRASKA
AGRICULTURAL STATION
LINCOLN, NEBR. FALL

DEATH BY STARVATION

Nebraska's Chemical War on Weeds and the Role of 2, 4-D as a Killer

By KEITH CARTER

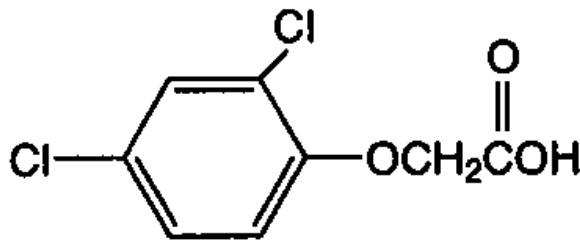
The who used by a such as we form the (step) is in

JOHN DEERE Model "M"

GENERAL PURPOSE Tractor

JOHN DEERE
QUICK-HATCH
WORKING EQUIPMENT

2,4-D



(2,4-dichlorophenoxy)acetic acid



The 1940's

- Rapeseed introduced to Canada; soybean introduced in US
- One farmer feeds 11 people
- Single super phosphate production
- Hybrid corn @ 88% corn acres
- Commercial fertilizer use @ 14.6 million tons
- 2,4-D developed and introduced
- Change from horses to tractor power leads to sharp productivity increase

I'm late—
but dinner won't be!

Swanson TV Brand Dinners, the ever-
quick meals that taste home-cooked

Convinced thought for a hurried luncheon? There's
always time to get a hot, delicious meal on the table
when you bring home over-quick Swanson TV Dinners.
Each hearty dinner comes complete in its own heating
serving tray—in piping ready in 15 minutes or
less, with no wash before, no dishes after.

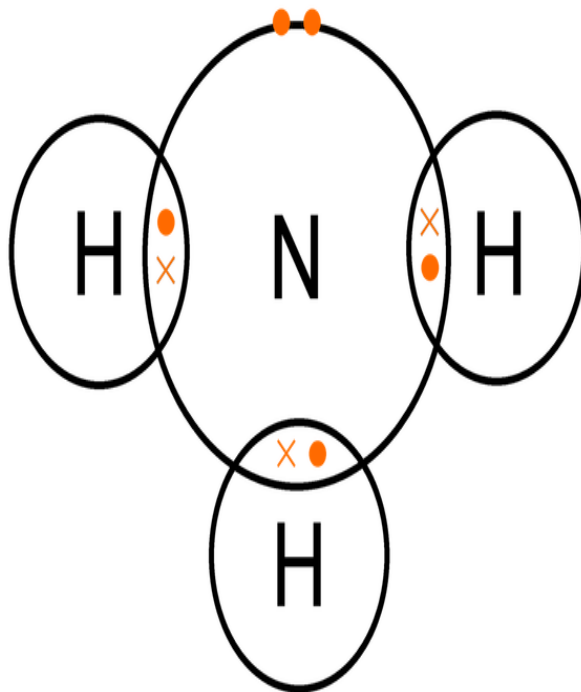
You needn't wait for an emergency, though,
to enjoy all the extra good eating these TV Dinners
provide. Lamb, tender slices of juicy
beef... chicken, hot rice, vegetables / corns seasoned in
butter, buttered green peas and tender, rare potatoes
in savory brown gravy. All with that old-fashioned,
home-cooked flavor that only Swanson care and
tweaking give you. No wonder so many people
find so many reasons to enjoy genuine Swanson
TV Brand Dinners (beef, chicken, turkey and fish
if needed). Try them yourself.



SWANSON

TV Dinners

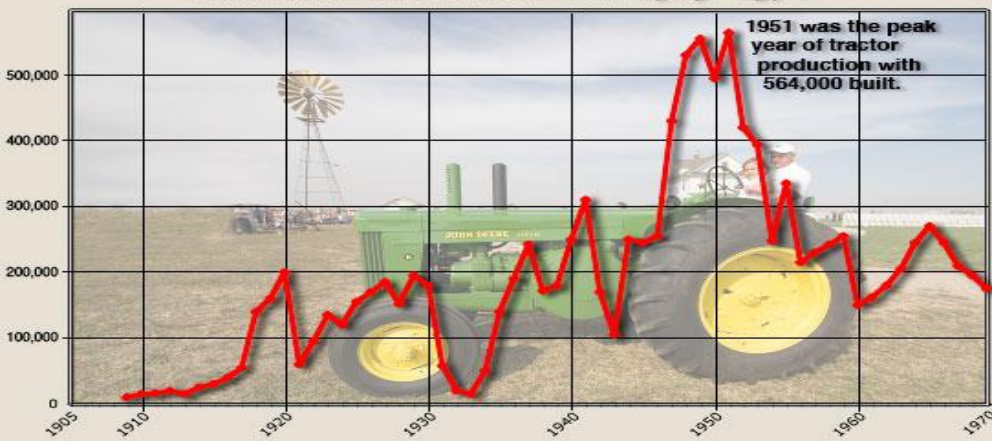
SWANSON, INC.
541 Van Allen, Denver, Colorado 80202
Supplies, Inc., 1001 E. 1st St.,
Tulsa, Okla. 74103



In 1957, the simple "beep, beep"
from Sputnik produced fear.

Convenience plus a strong name brand, massive advertising
and new freezers in 1950s-era kitchens helped make the
Nebraska-based "TV Dinner" a success. [Click here to see](#)
[a vintage 1953 commercial for Swanson's TV Dinners](#)

Tractors Produced in the U.S. 1909 - 1970



The 1950's

- Ammonia being used more progressively as nitrogen source
- Tractors now out-number animals as farm power supplier
- One farmer feeds 15 people
- Commercial fertilizer use @22 million tons
- MCPA developed and introduced
- Hybrid corn closing in on 96% of corn acres
- 1957 Sputnik 1 launched and the space race begins



As agriculture became more specialized and as research advanced, farmers needed more and more information. County Agent office, Kansas, FSA.



Farmers listen to a presentation of research on hybrid wheat varieties at a field day at Washington State University in 1962. [Source Washington State Univ.]



FSA clients at home, Hildage County, TX. The radio was the first instrument of the new information age that came into rural homes. FSA.

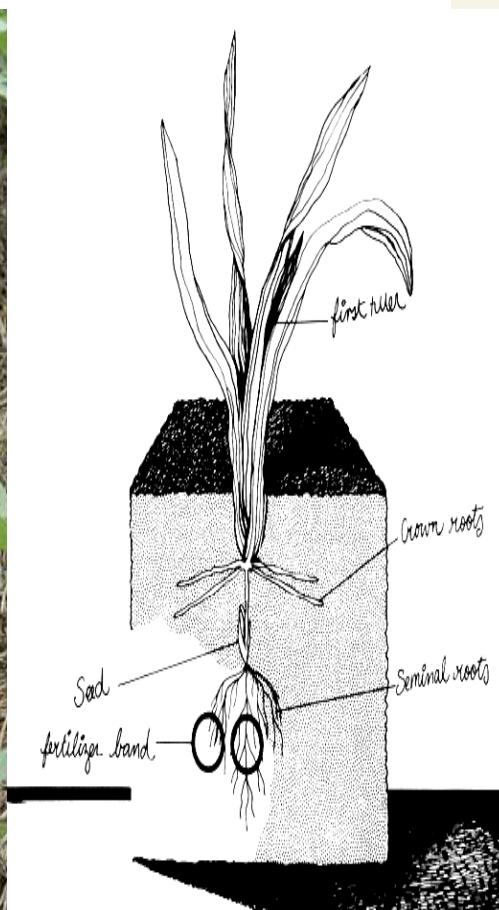


Three generations of the Hammer family – Bill, Jr., Jim, and Bill, Sr. – on the family farm near Scales Mound, Illinois in the late 60s. Photo from Neighbors by Archie Lieberman, photos and content copyrighted by Archie Lieberman.



The 1960's

- 1962 Potash mining begins in Canada
- 1966 W CDN soil testing laboratory opens
- Remote sensing appears – beginning of precision agriculture (?)
- One farmer feeds 26 people
- Grain over production causes problems
- Commercial fertilizer use @34 million tons
- Soil applied herbicides appear – diallate and triallates (e.g.Treflan/Avadex)
- Hybrid corn almost 100% of corn acres
- 1969 moon landing

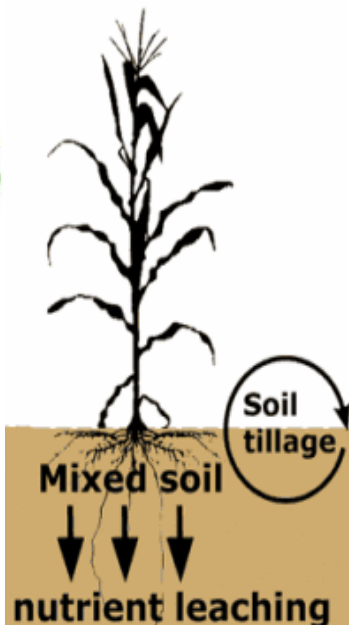


The 1970's

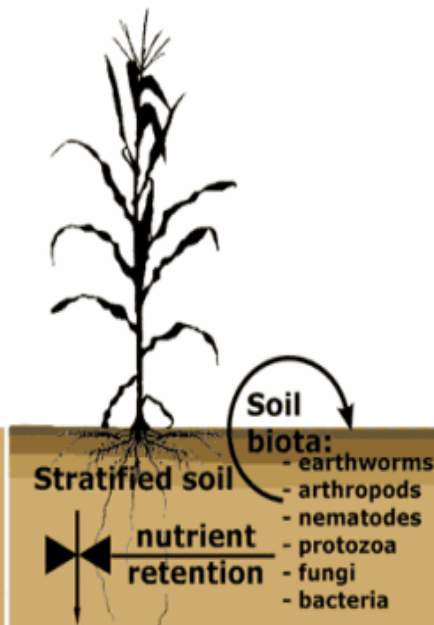
- Development of canola in Canada
- US and Canada introduce grain inventory controls (LIFT/CRP)
- Fertilizer banding appears
- One farmer feeds 48 people
- Commercial fertilizer use @47 million tons
- Glyphosate introduced
- Bulk blending of fertilizer appears
- Reduced/no-till farming advances with a fury
- Crop sequence diversification allowing true rotations vs mono-cropping



Conventional Tillage



Conservation Tillage



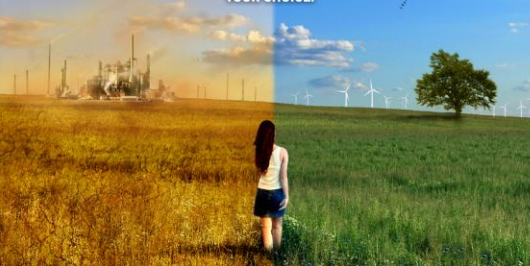
PRECISION AGRICULTURE
New satellite technology to put the farmer on the road to success!

WHAT ARE YOU DOING FOR YOUR WORLD?

PLANT TREES - USE ENERGYSTAR APPLIANCES - CONDITION YOUR HOME - DRIVE LESS - FOLLOW KYOTO - WRITE TO THE GOVERNMENT - USE GREEN CREDITS - TURN OFF THOSE LIGHTS, THAT ENGINE, THAT TV - GO HYBRID - PLANT SOME MORE TREES - JUST GET OUTSIDE AND ENJOY NATURE.

IT'S REALLY NOT THAT COMPLICATED. IT'S TIME TO MAKE SOME CHANGES. IF YOU CARE ABOUT THE HEALTH OF OUR ENVIRONMENT AND THE FUTURE OF THIS PLANET, YOU CAN MAKE A FEW EASY CHANGES TO YOUR LIFESTYLE - FOR YOURSELF, FOR YOUR CHILDREN, FOR YOUR WORLD. OR YOU COULD LET HEATWAVES AND HURRICANES AND RISING COASTLINES AND MELTING GLACIERS CONTINUE TO DESTROY MILLIONS OF LIVES.

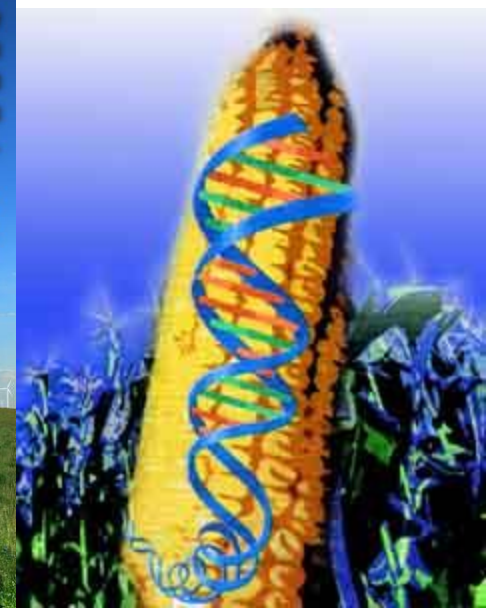
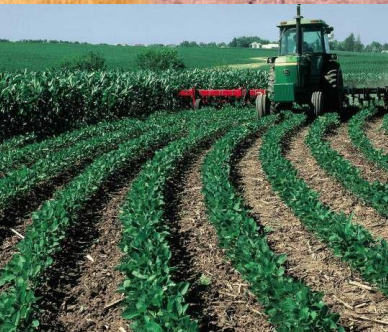
YOUR CHOICE.



WHICH FUTURE WILL YOU CHOOSE?

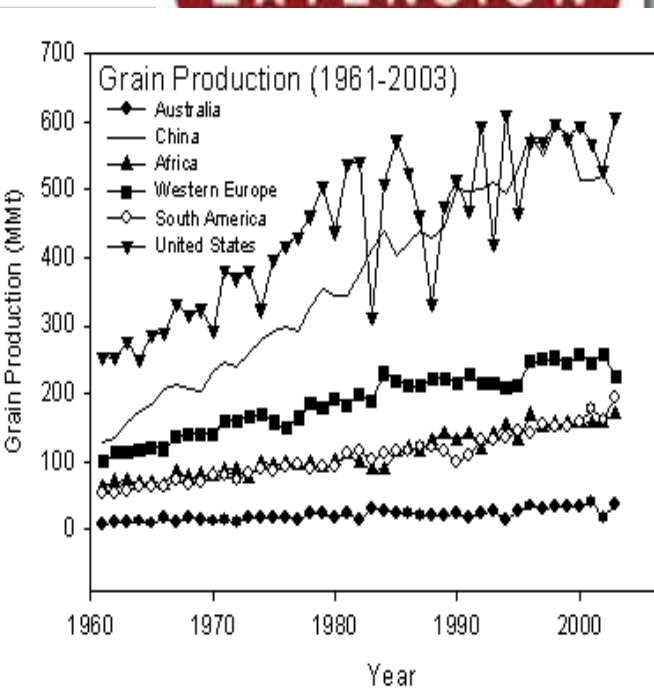
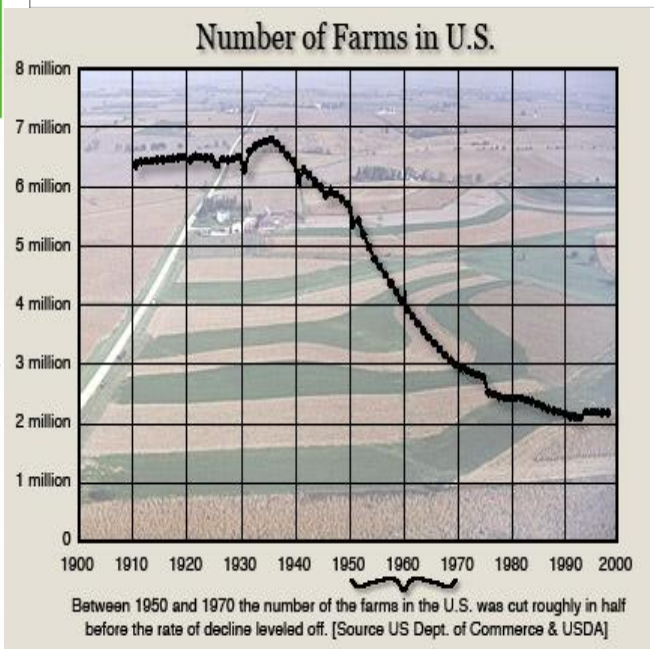
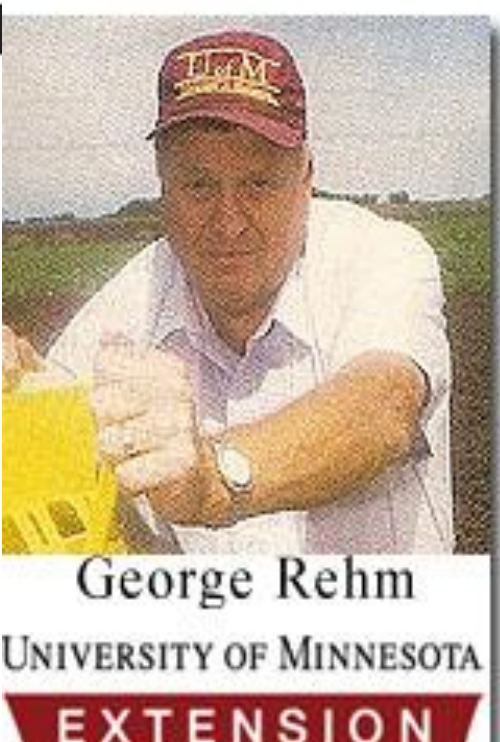
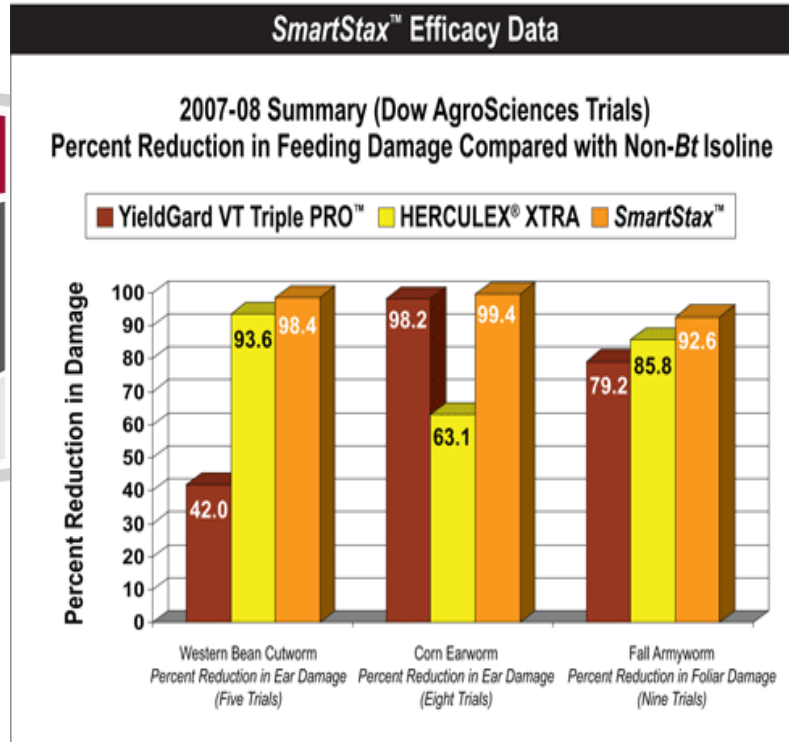
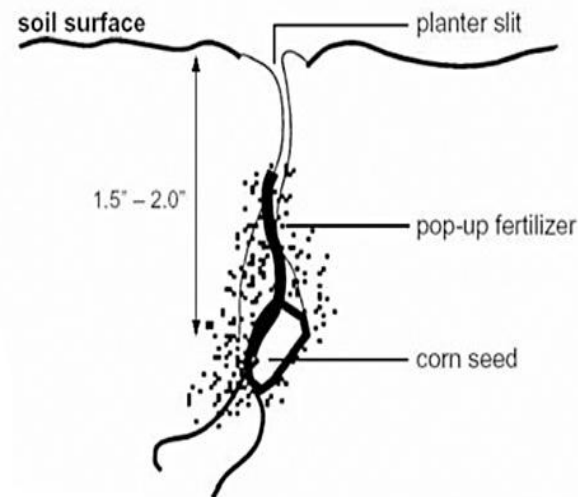


Science in the service of agriculture makes a difference.



The 1980's

- Dry soil conditions encourage conservation tillage (remember the 1930's ?) programs and advances
- Precision agriculture “re-visited”
- Banding nitrogen accepted as superior to broadcast
- One farmer feeds 76 people
- Commercial fertilizer use @52 million tons
- US gov't introduces PIK program
- Genetically engineered corn on forefront of research
- Environmental awareness issues begin to surface in earnest
- 1989 Berlin wall comes down



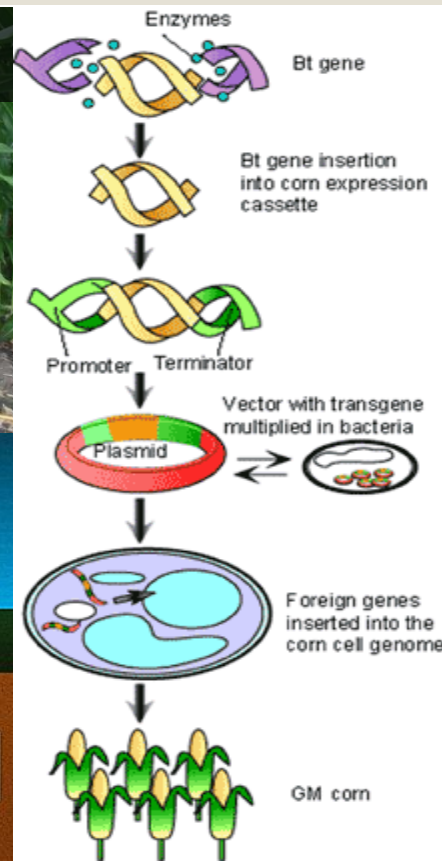
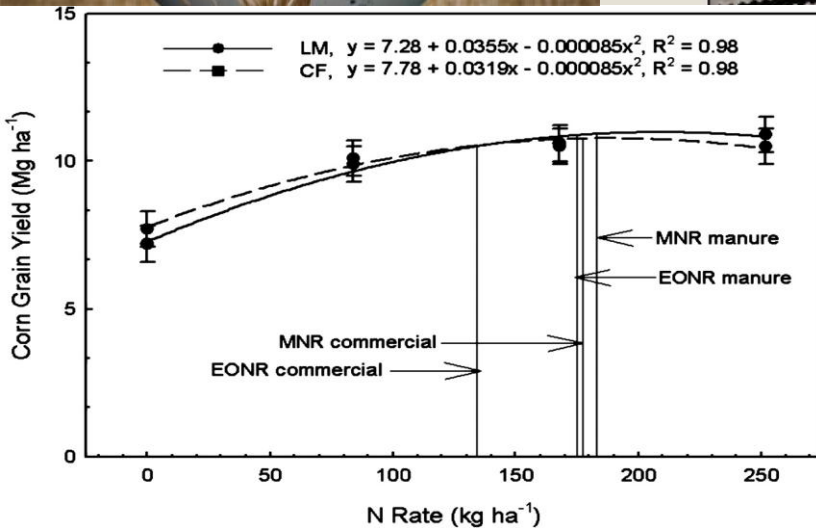
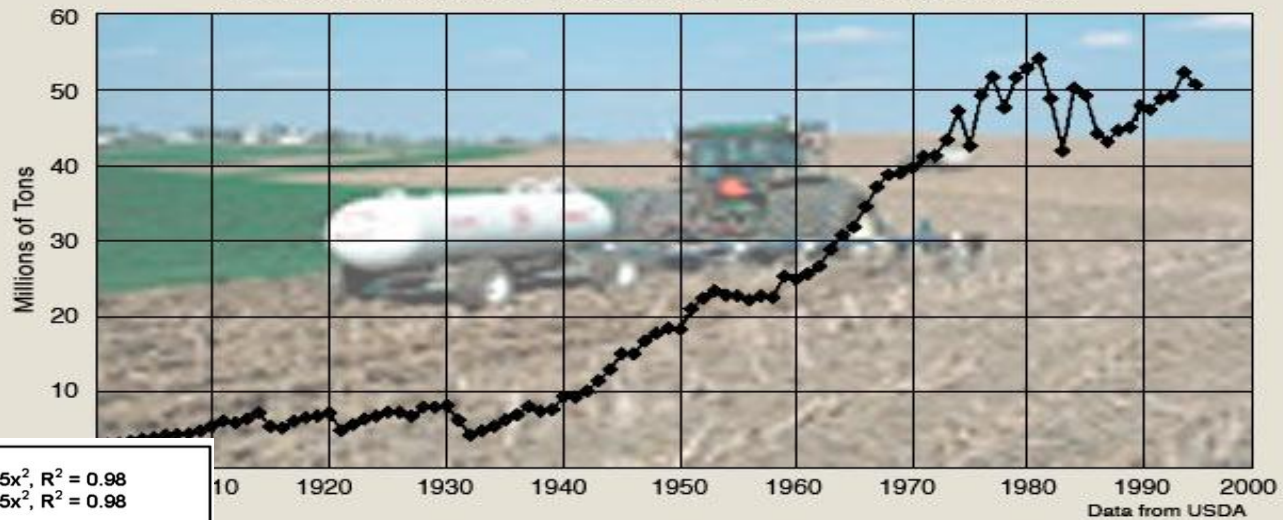
The 1990's

- HT canola introduced in Canada
- Seed placed phosphate/pop-up benefits proven and adopted
- Glyphosate pricing declines and is one factor that aids in no-till adoption
- One farmer feeds 110 people
- Commercial fertilizer use @ 54 million tons
- RR corn and beans available
- Triple stack hybrids begin adoption
- 1991 – Soviet Union “falls”
- 1994 – Apartheid ends in South Africa
- 1995 – AN used in Oklahoma bombing

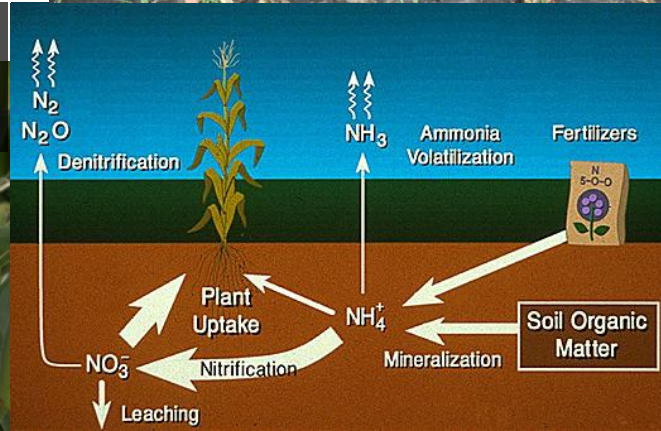


Food Security

Commercial Fertilizer used on Farms



Corn with Drought Gene



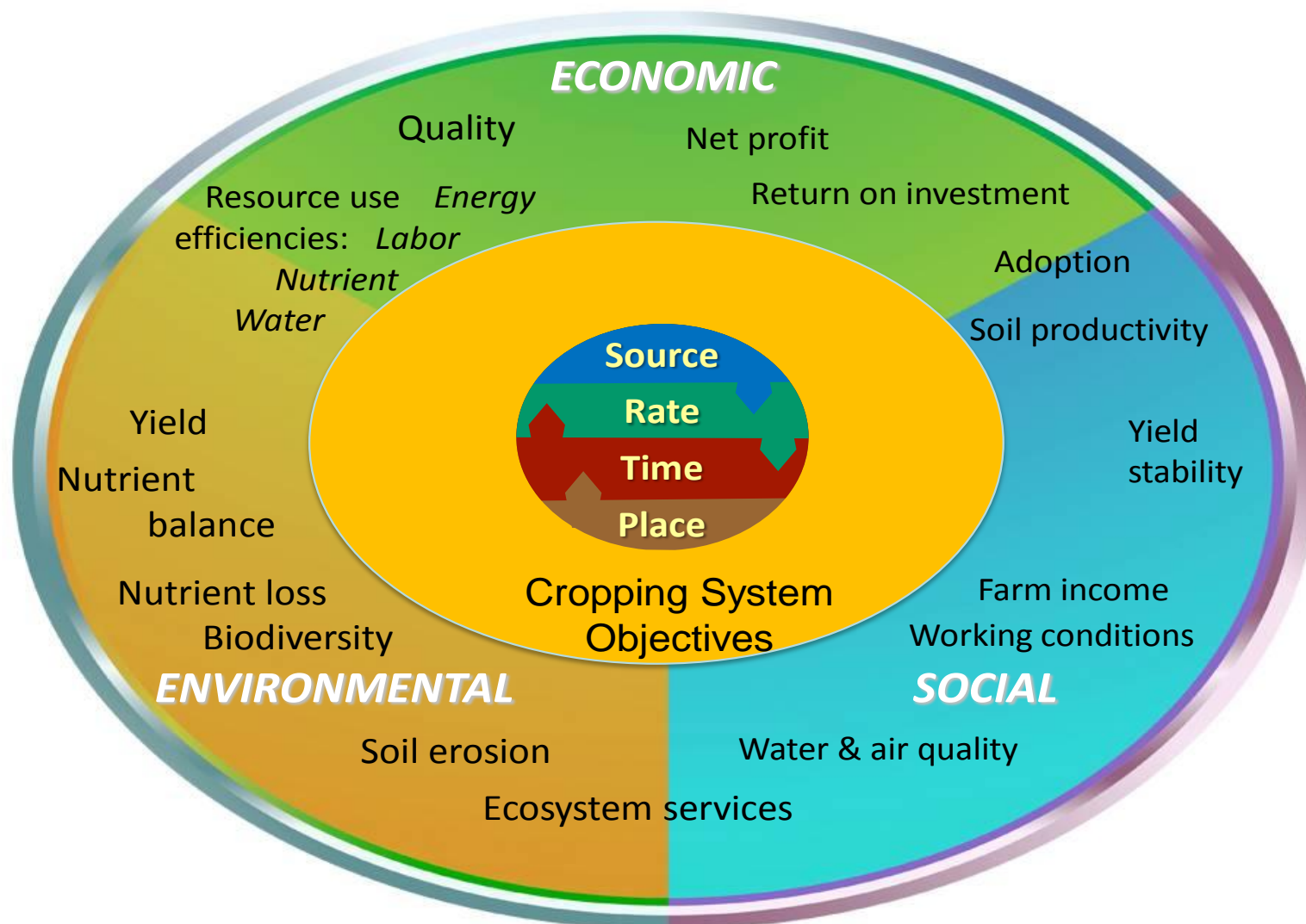
The 2000's

- HT/RR crops widely adopted
- BT corn introduced – now 65% of corn acres
- Nitrogen management change from yield to economic optimums
- Inhibitors and controlled release technologies for nitrogen available and adopted
- One farmer feeds 155 people
- Commercial fertilizer use @ about 56 million tons
- Food security and environment at forefront of production agriculture issues
- GPS technology sets stage for large scale precision farming
- Less costly to purchase GPS unit versus traditional field marker system(s)
- Introducing drought and salt tolerant genetics; working on NUE

Thoughts on the Future

- 1 billion people suffer from chronic hunger (2009)
- 923 M people are under-nourished (2007)
- FAO estimates 37 countries are facing a food crisis
- Future increases in food production will have to occur on less available arable land...and can only be done by increasing yield per unit of existing land
- For many parts of the world – fertility and fertilizer use is inadequate and unbalanced to meet food production requirements
- Estimated that by 2050 – 1 billion people will be affected by water shortages

4 R Nutrient Stewardship and Better Management Practices





SUSTAINING A GROWING WORLD

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