



Hillock
Capital Management





AGENDA

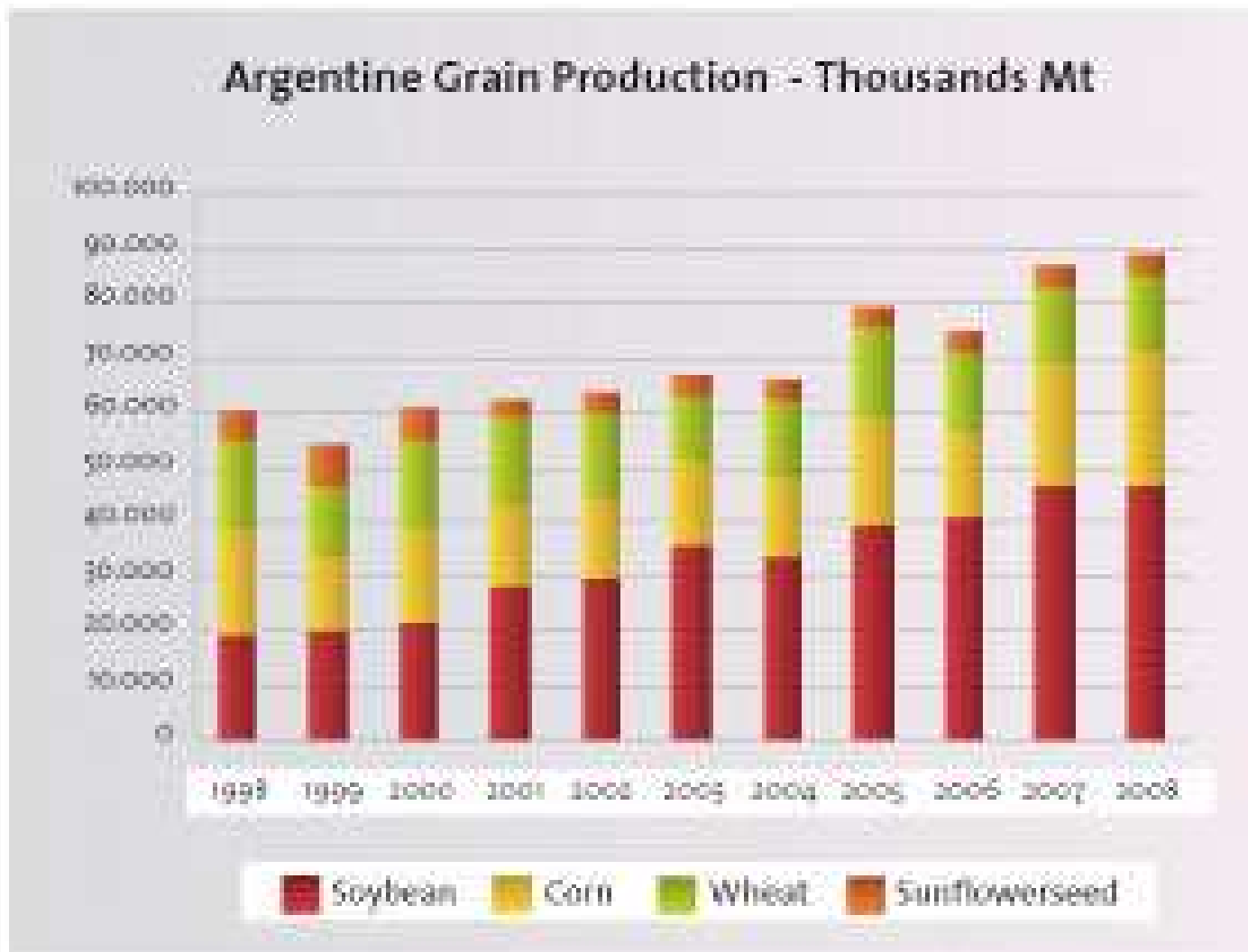
- **COUNTRY STATISTICS**
- **SOIL & CLIMATE**
- **NO TILL AND GMO**
- **DOUBLE CROPPING**
- **PROFITABILITY**
- **CONTRACTORS**
- **LAND MARKETS**



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Capital Management

COUNTRY STATISTICS

FACTS & FIGURES

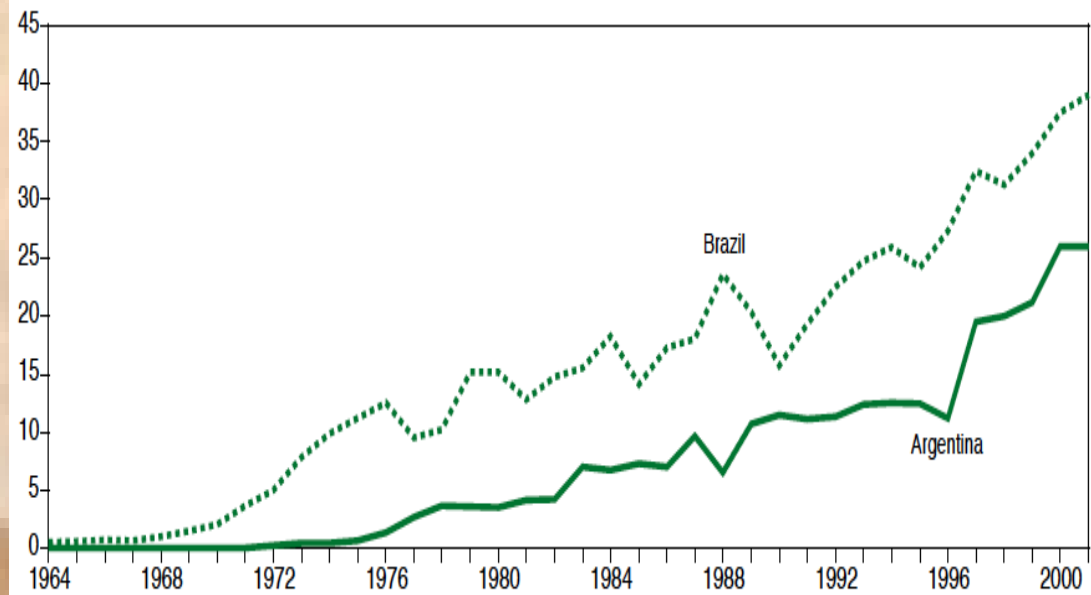


Source: Sagpya

FACTS & FIGURES

The emergence of soybean production in Argentina during the 1970s followed Brazil by about a decade

Mil. metric tons

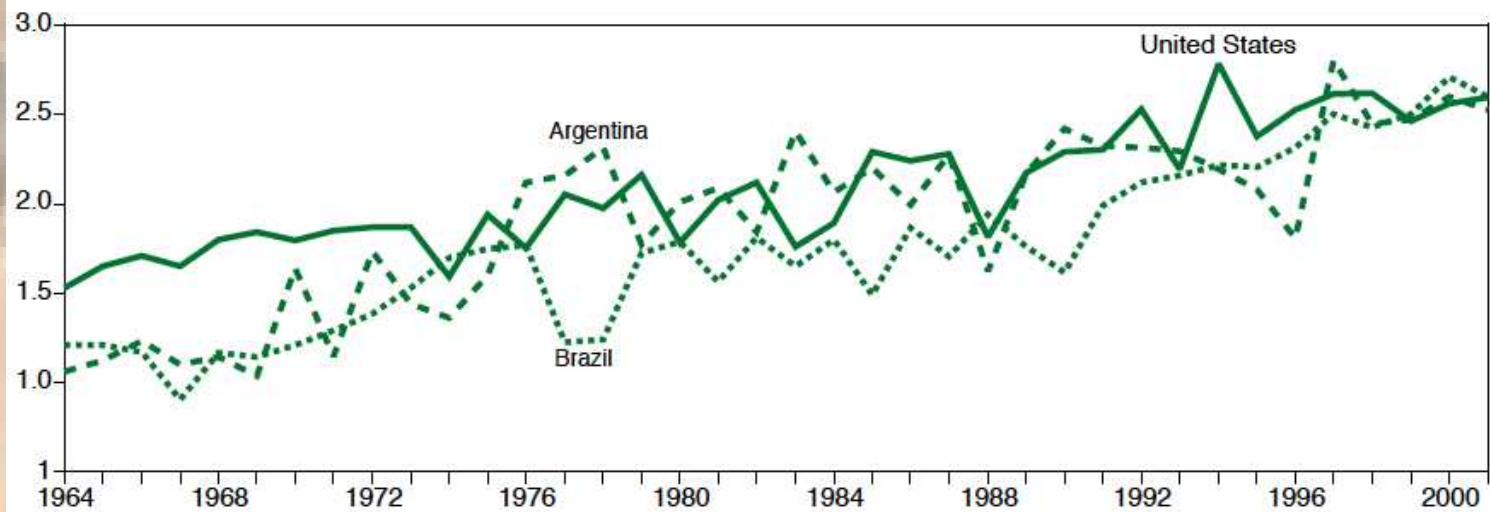


Source: USDA; August 10, 2001.

FACTS & FIGURES

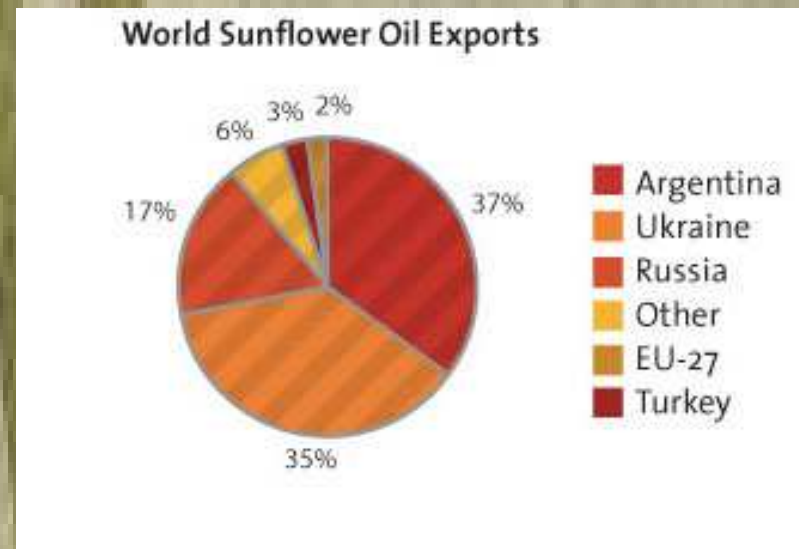
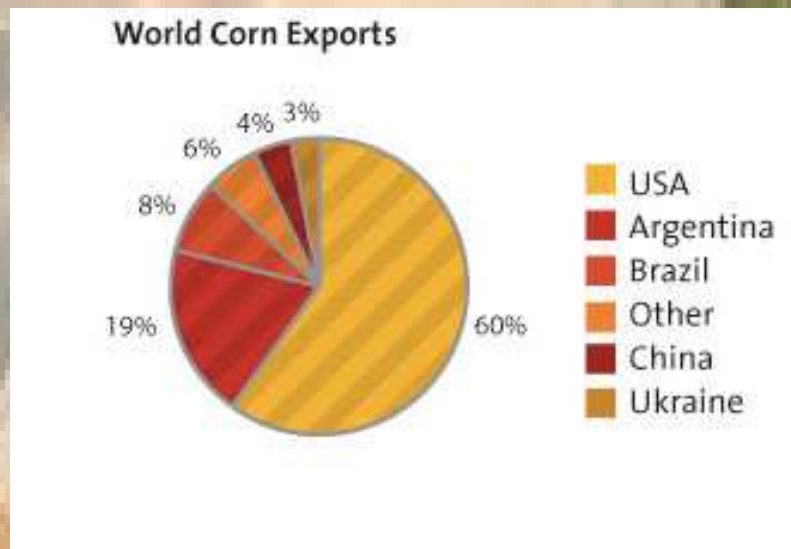
Soybean yields in Argentina, Brazil, and the U.S. have been near parity since 1999

Metric tons per hectare



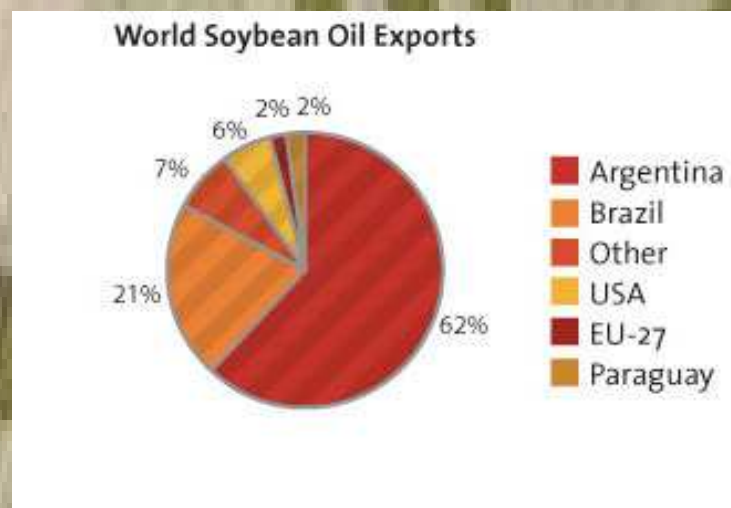
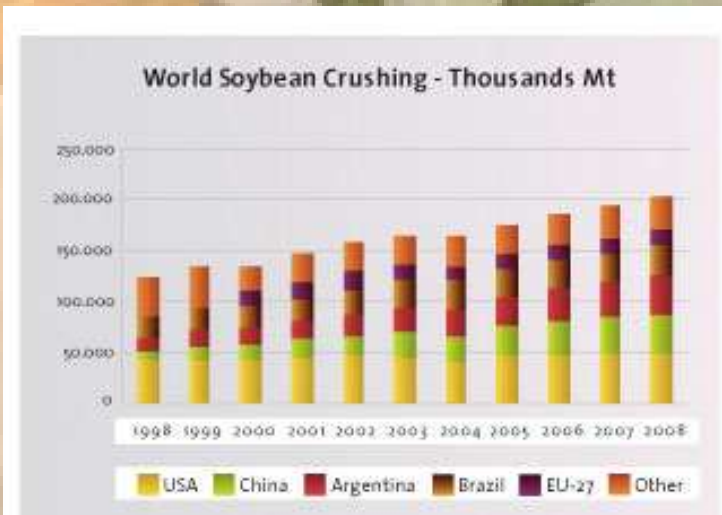
Source: USDA; August 10, 2001.

FACTS & FIGURES



Source: Sagpya

FACTS & FIGURES

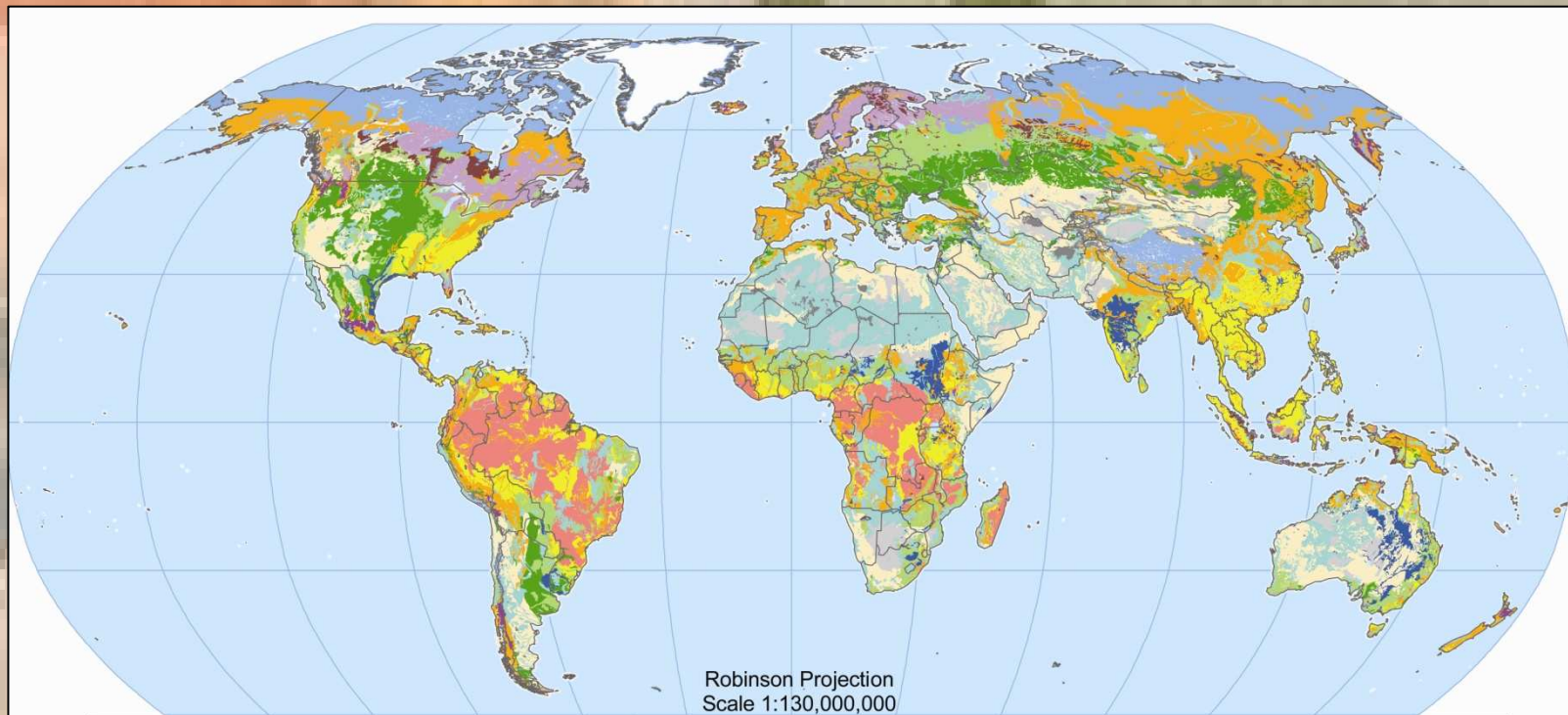

















Source: Sagpya



REGION'S SOIL & CLIMATE

Global Soil Regions



Soil Orders				
 Alfisols	 Entisols	 Inceptisols	 Spodosols	 Rocky Land
 Andisols	 Gelisols	 Mollisols	 Ultisols	 Shifting Sand
 Aridisols	 Histosols	 Oxisols	 Vertisols	 Ice/Glacier

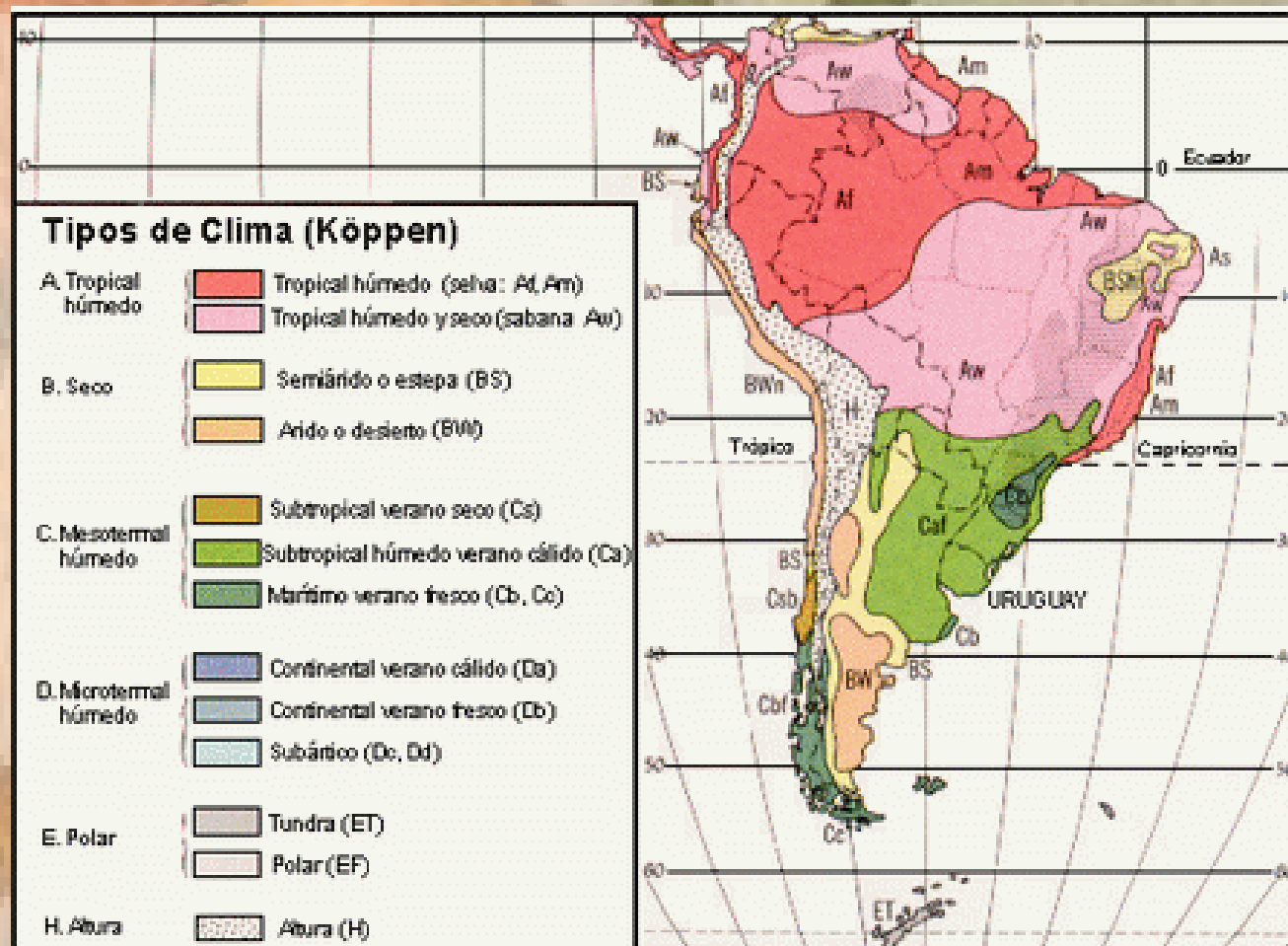


US Department of Agriculture
Natural Resources
Conservation Service

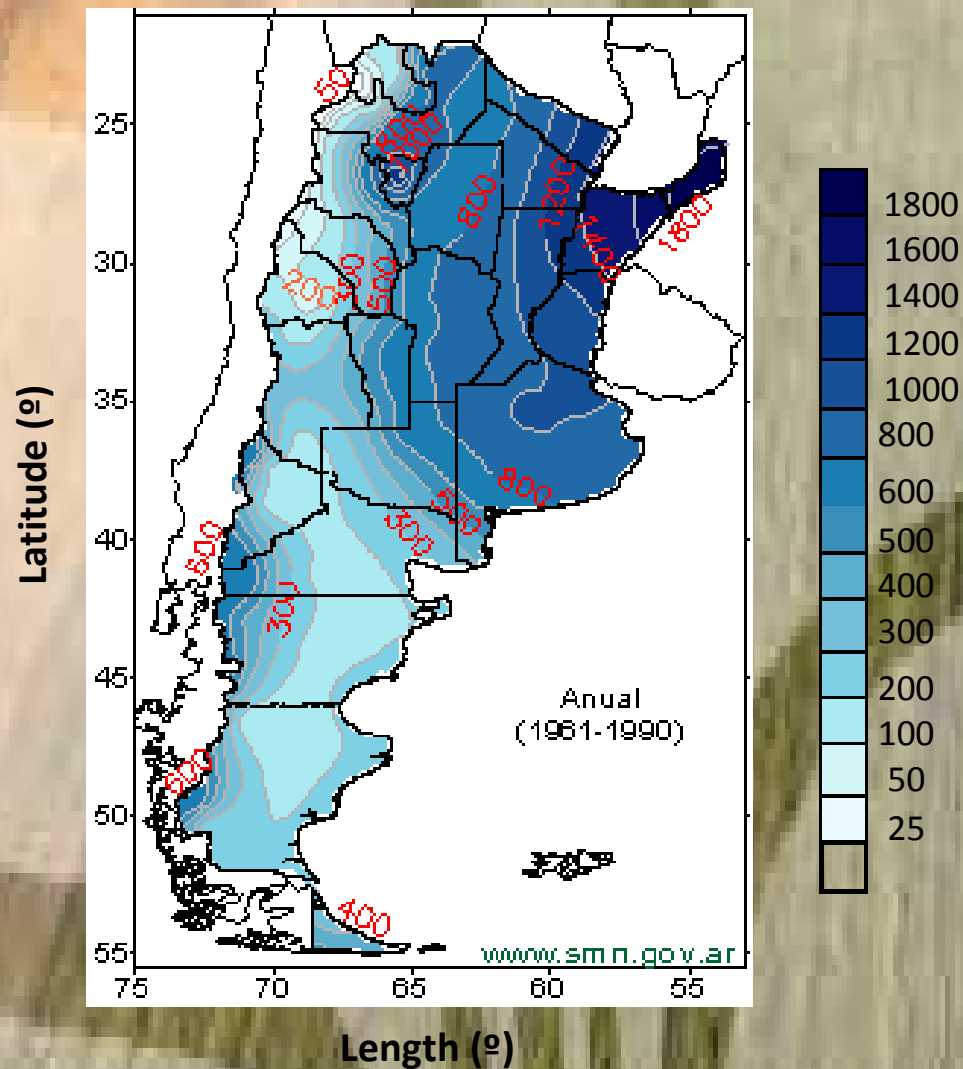
Soil Survey Division
World Soil Resources
soils.usda.gov/use/worldsoils

November 2005

Climate Classification

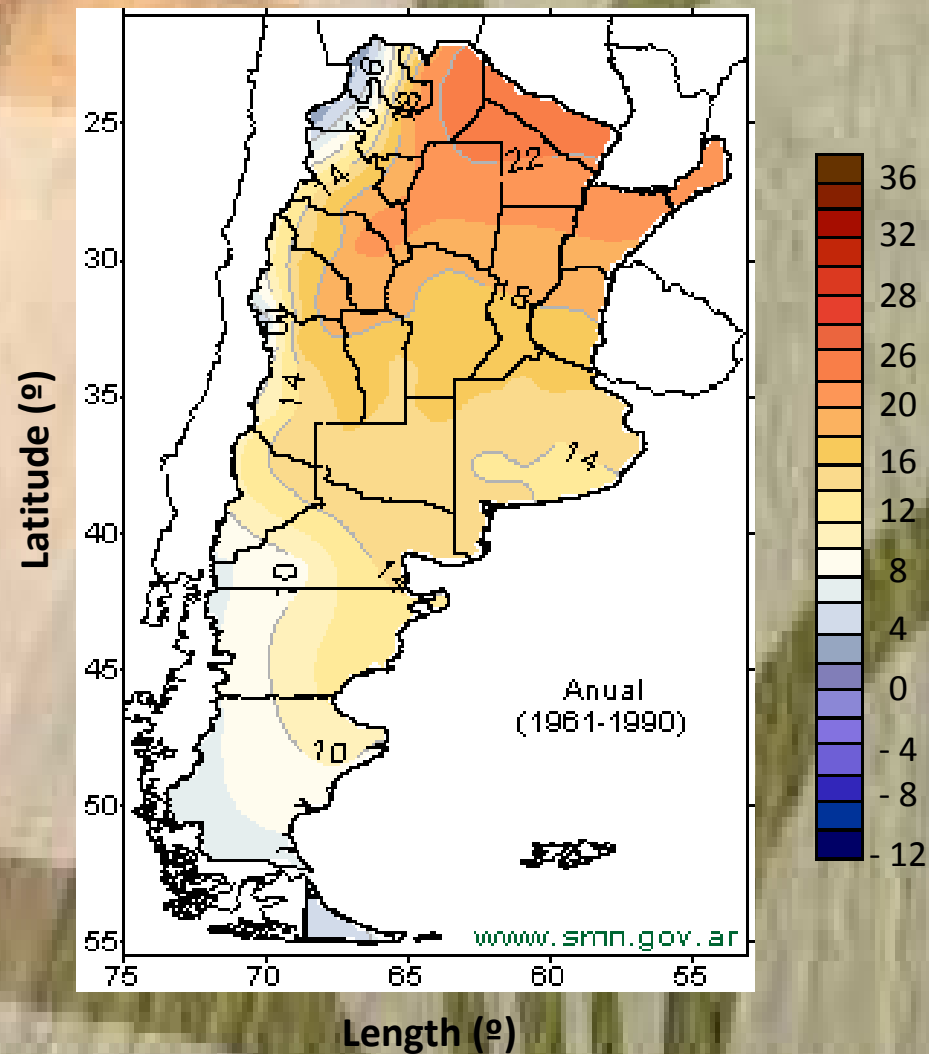


Annual average rainfall (mm) Argentina (1961 – 1990)



Source: Servicio Meteorológico Nacional

Annual average temperatures (° C) Argentina (1961 – 1990)



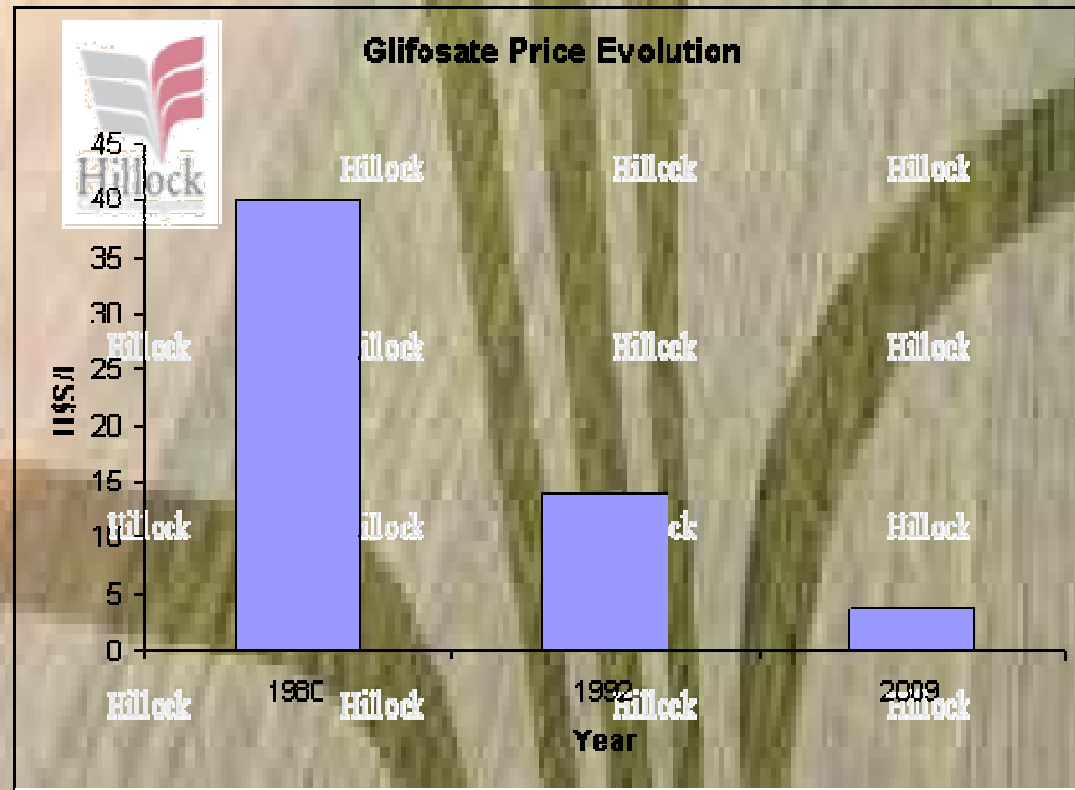
Source: Servicio Meteorológico Nacional



TECHNOLOGY IMPACT – NO TILL AND GMO

Historical Review

- In the 30's Michigan University adapted the first no tillage seeding machine.
- However, large scale tillage was made when 2,4-D (a broadleaf weed killer) was made available to farmers and later Atrazine and Paraquat.
- In the 80's Glyphosate, was the key for the system expansion.
- In 1992 Glyphosate patent expires, its price falls drastically, and this leads to the expansion of no tillage seeding.
- Currently there are more than 100 million hectares under no tillage world wide. Have of it in South America (mainly Argentina).

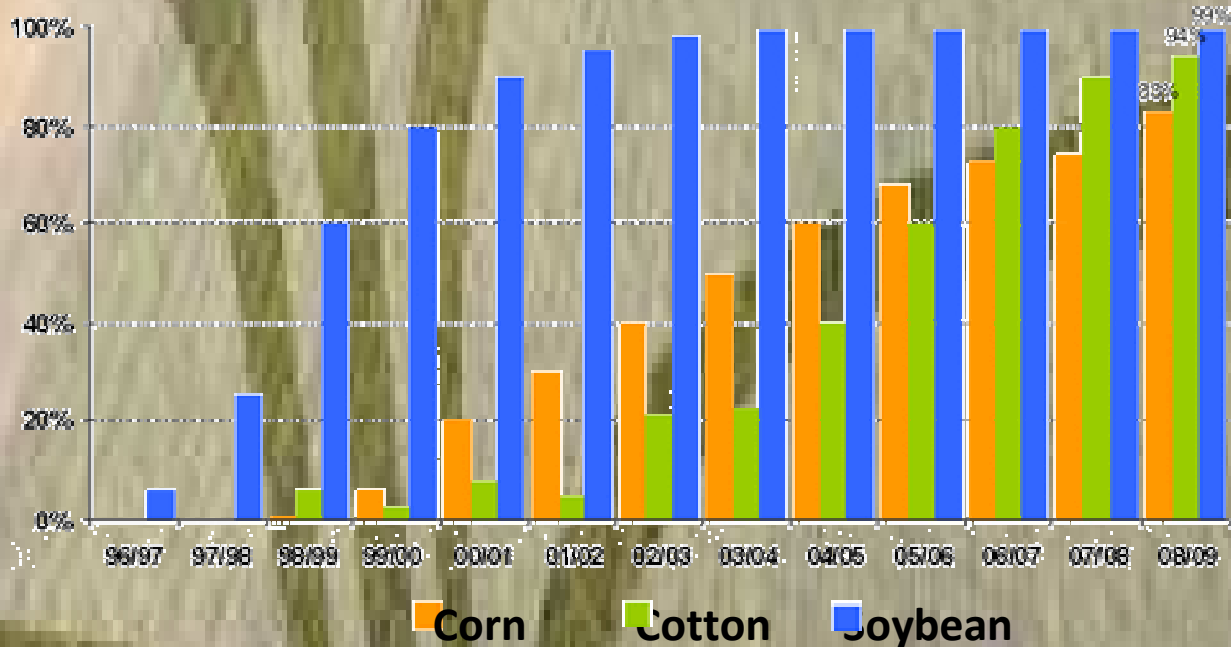


GMO Impact

Commercial events approved in Argentina

Specie	Introduced feature	Event Processing
Soybean	Glyphosate tolerance	"40-3-2"
Corn	Lepidoptera resistance	"176"
Corn	Glufosinate ammonium tolerance	"T25"
Cotton	Lepidoptera resistance	"MON 531"
Corn	Lepidoptera resistance	"MON 810"
Cotton	Glyphosate tolerance	"MON 1445"
Corn	Lepidoptera resistance	" Bt 11"
Corn	Glyphosate tolerance	" NK 603 "
Corn	Lepidoptera resistance and Glufosinate ammonium tolerance	"TC 1507"
Corn	Glyphosate tolerance	"GA 21"
Corn	Glyphosate tolerance and Lepidoptera resistance	NK603x810
Corn	Lepidoptera resistance and Glufosinate ammonium and Glyphosate tolerance	1507 x NK603

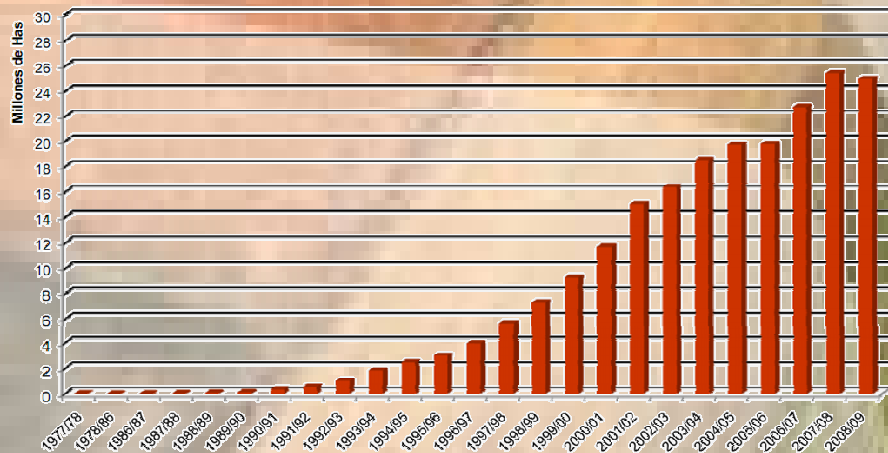
Evolution of the area cultivated with GMO in Argentina



Source: Argenbio, 2009

No Tillage in Argentina

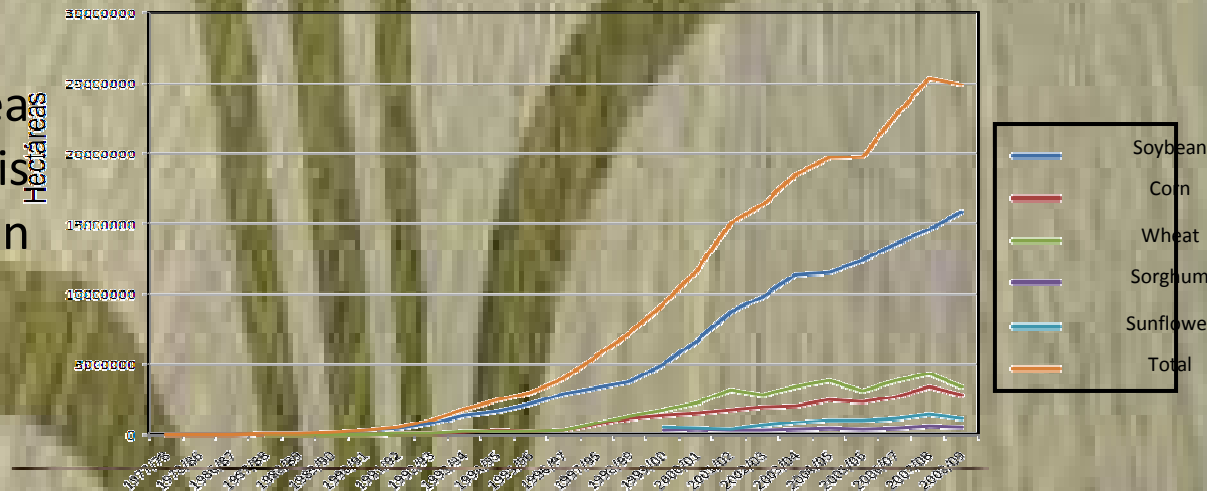
Evolution of Agricultural Area under no tillage



The fast expansion of the area under no tillage, from 9 million hectares in 1999 to 25.000.000 hectares in 2009, shows the continue interest in this technology

Evolution of Agricultural Area under no tillage per Crop

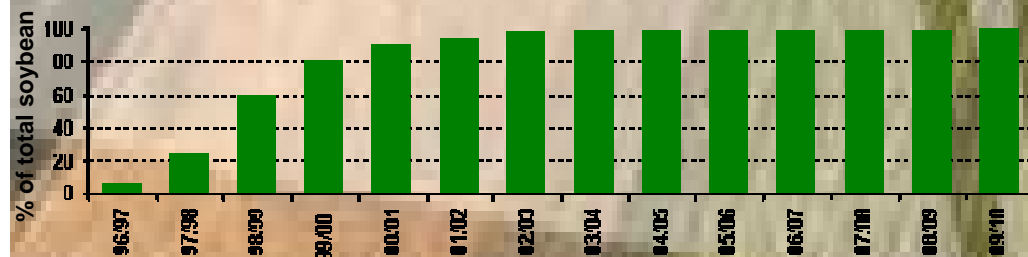
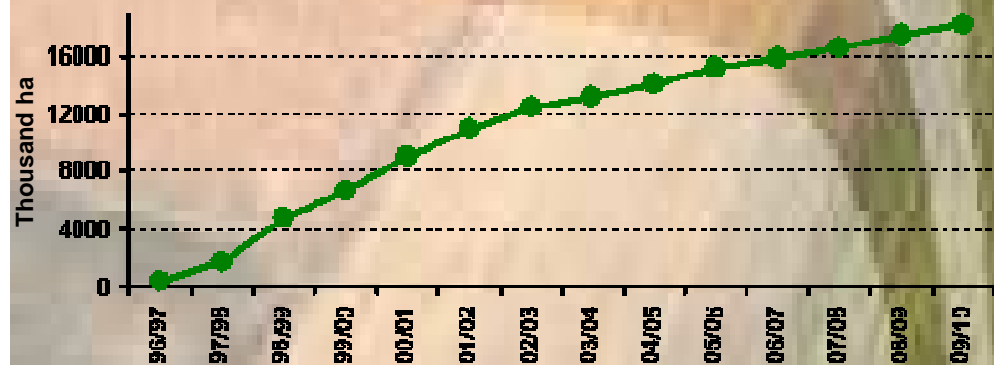
Over 70 % of Agricultural area under no tillage system. This value is 10 times higher than in most parts of the world .



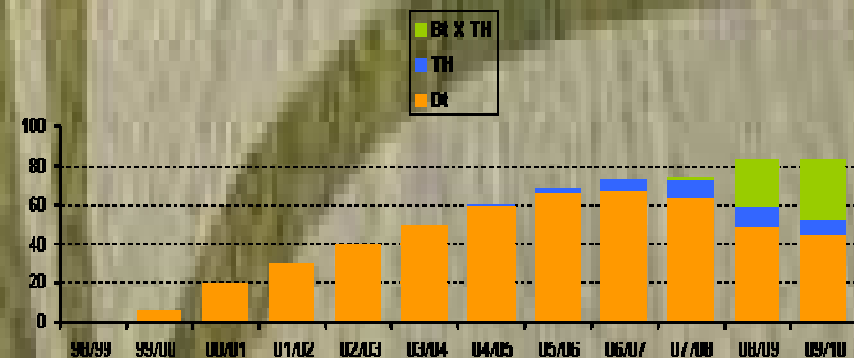
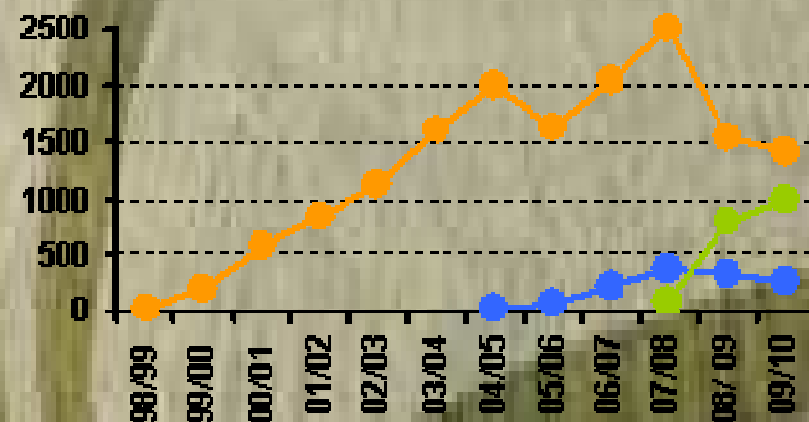
Source:Aapresid

Evolution of the Area with GMO in Argentina

Soybean



Corn



Source: Argenbio 2010



DOUBLE CROPPING

Rotation Assumptions

1st Year S

ROTATION
SCHEME

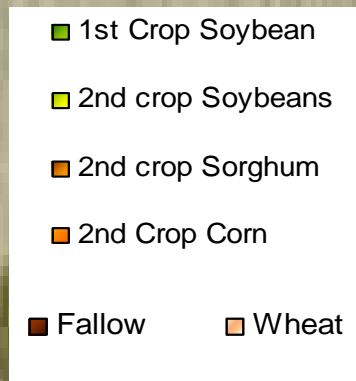
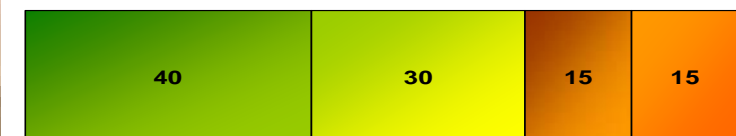
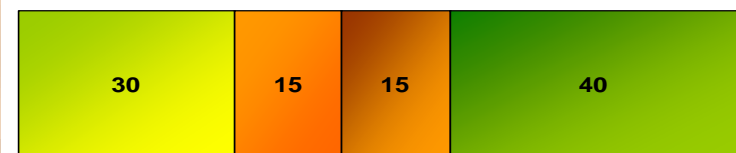
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Carbon/ha/year Amount

necessary to keep an appropriated level of O.M (2,5% in an ArgiudolTipico soil) = **4,3 tn/ha**

- **SOY 1° : 70 %**
- **WHEAT/SOY : 20%**
- **CORN : 10 %**
- **TOTAL : 2,8 TN/HA**

- **WHEAT/SOY : 50%**
- **CORN : 50%**

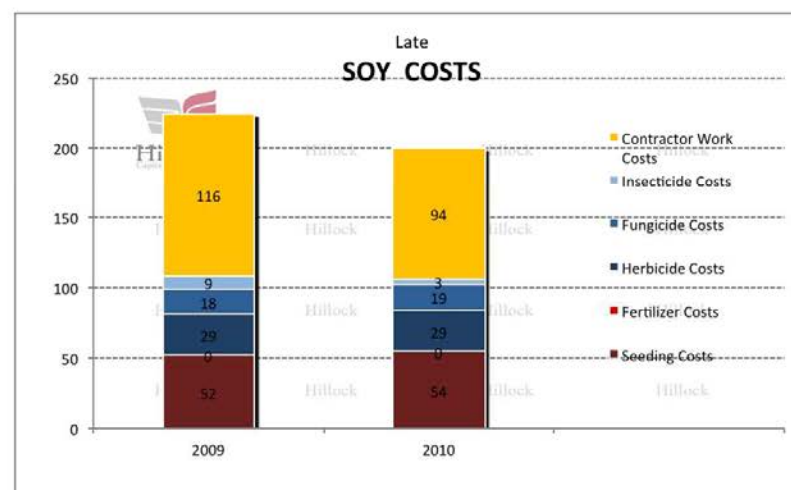
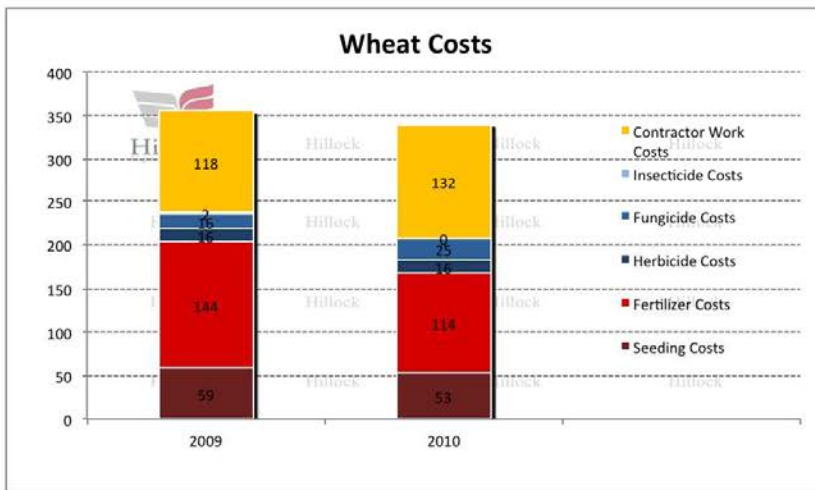
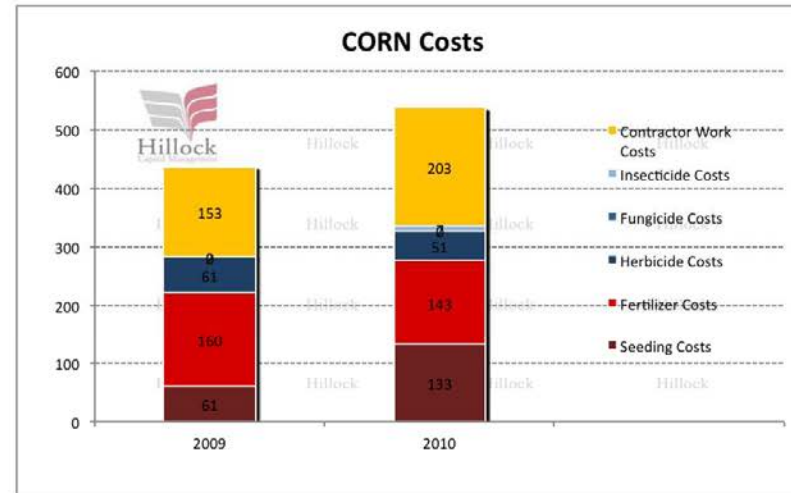
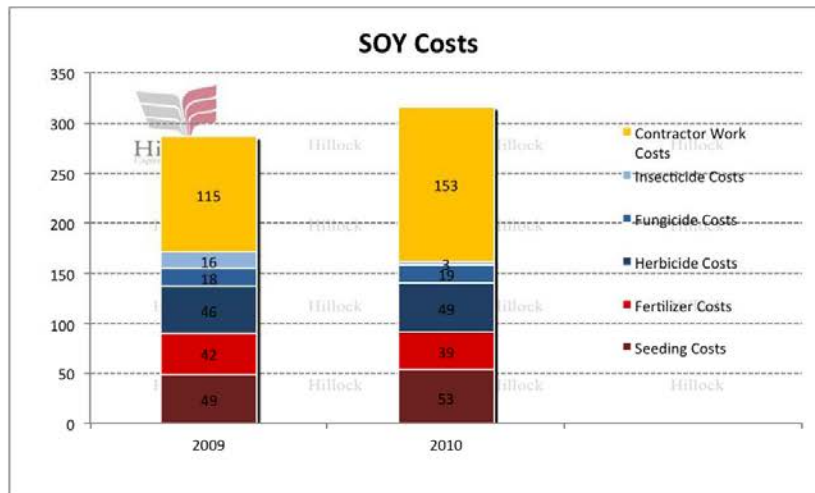
TOTAL : 4,8 TN/HA

(11tn corn - 4,1tn
wheat – 3,3 tn soy)



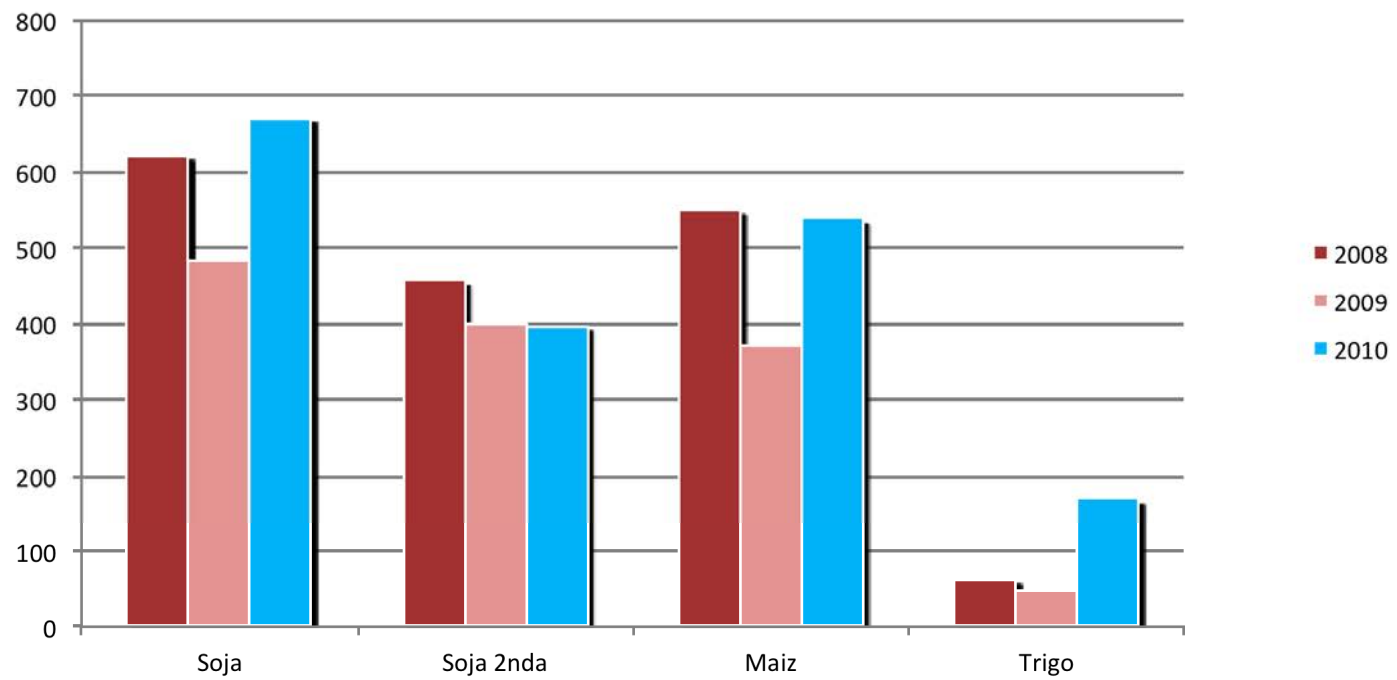
PROFITABILITY

AR330ZN COSTS



AR330ZN MARGIN

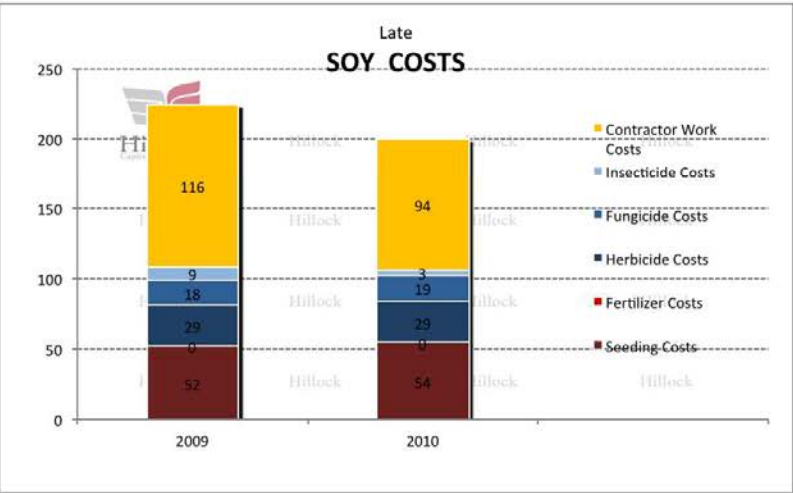
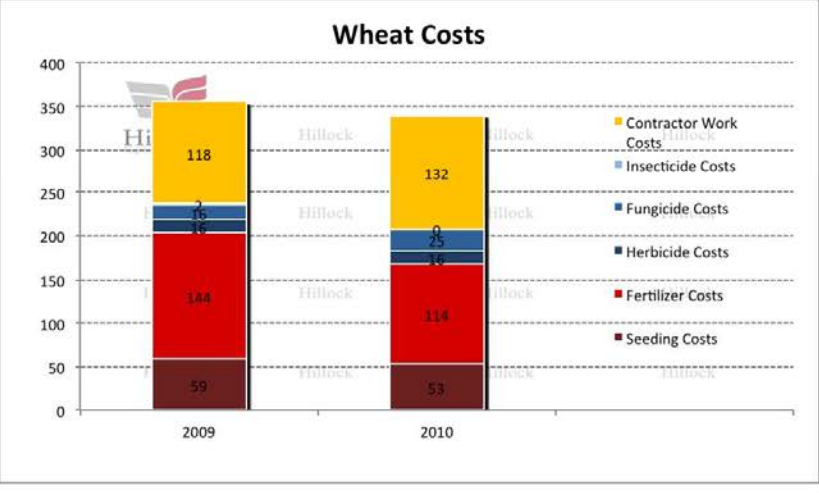
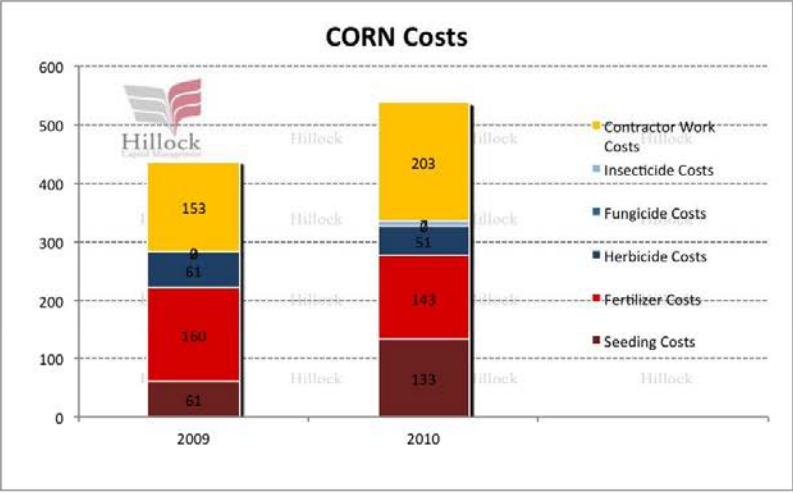
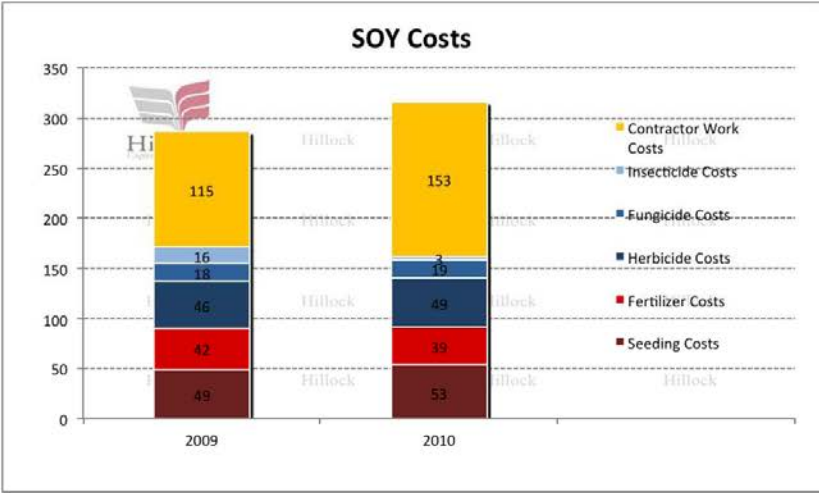
MARGENES (U\$D/Ha)



AR330ZN PROFIT

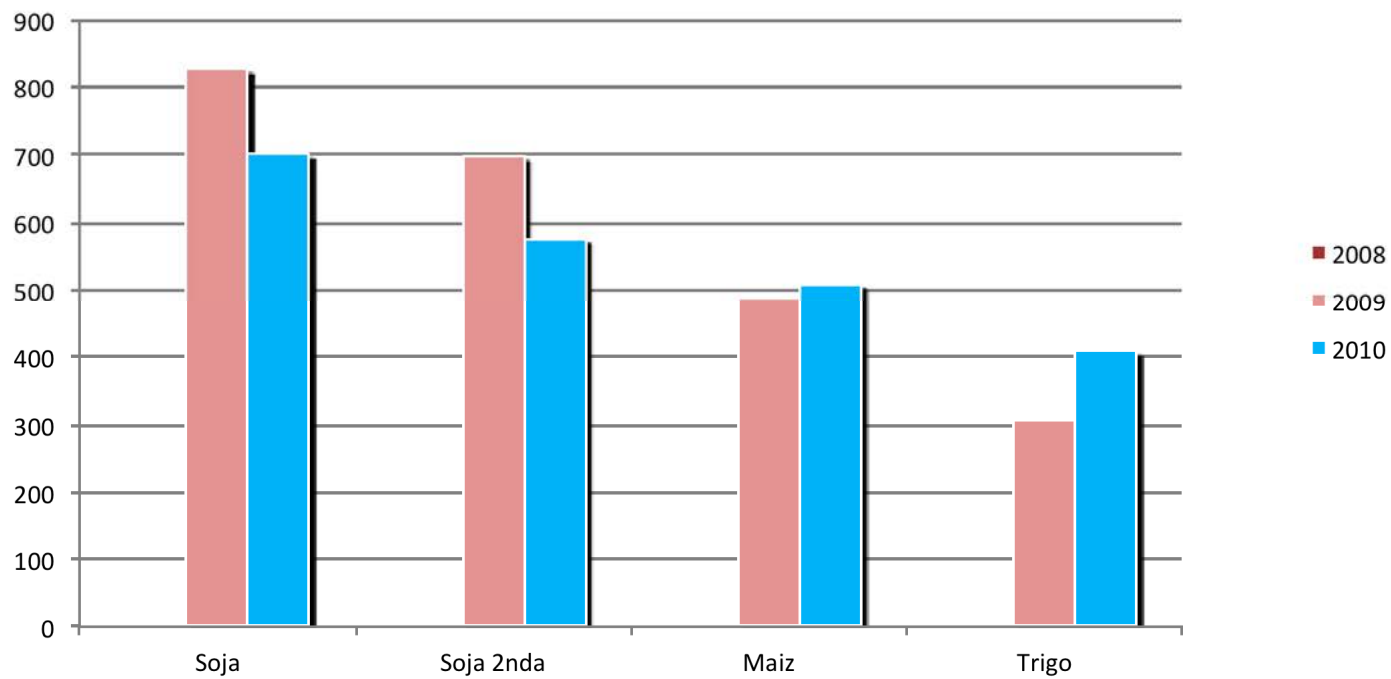
AR330ZN	SOY dev	LATE SOYBEANS	WHEAT	CORN
Acarage	83	165	165	83
Yield	4.80	2.90	3.70	13.20
Market Price	205	205	137	102
Market Revenue Main Product	986	596	508	1342
Gross Revenue	986	596	508	1,342
Seed Total	53	54	53	133
Fertilizer Total	39	0	114	143
Herbicide	48.90	29.20	15.89	51.12
Fungizide	19.00	19.00	24.75	0.00
Insect...	3.11	3.11	0.00	6.86
Other Pesticide				
Plant Protection Total	71	51	41	58
Contract work	153	94	132	203
Total Direct Costs	316	200	340	537
NET MARGIN (Before Tax)	651	671	169	805
Land Value USD/Ha	9500			
NET MARGIN (Before Tax)	7%			

UY292SW COSTS



UY292SW MARGIN

MARGENES (U\$D/Ha)



UY292SW PROFIT

UY292SW		SOY dev	LATE SOYBEANS	WHEAT	CORN
Acarage		73	146	146	73
Yield		3.40	2.80	3.20	7.50
Market Price		302	302	241	123
Market Revenue Main Product		1027	846	771	921
Gross Revenue		1,027	846	771	921
Seed Total		73	73	64	149
Fertilizer Total		37	0	110	133
Herbicide		36.18	23.85	14.55	46.18
Fungizide		21.00	21.00	24.00	0.00
Insect...		3.66	3.66	0.00	7.14
Other Pesticide					
Plant Protection Total		61	49	39	53
Contract work		156	149	151	172
Total Direct Costs		326	270	363	508
NET MARGIN (Before Tax)	770	700	576	408	413
Land Value USD/Ha	4060				
NET MARGIN (Before Tax)	19%				



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CONTRACTORS IN ARGENTINA

Origine and Evolution

- In the early stages of agriculture immigrants faced difficulty in accessing land ownership.
- So they either invested on Machinery or got employed at the farms.
- During the 40's worker conflicts convinced owners to outsource services avoiding to keep machinery and employees in their payroll.
- Paralel to this is a growing trend of farm owners to move to the cities.

Origine and Evolution

- During the 50's the government subsidized interest rates for the purchase of machinery.
- Paralel to this, in the 40's and 60's several laws and decrees aimed to protect producers over land owners gave new impulse towards contractor works.
- These laws included automatic rent contract renewal, fixed rent prices and land sale restriction while they where rented.
- All this forced land owners to produce their own land and the only way to achieve this was by hiring contractors.

Source: Barsky Osvaldo y Gelman Jorge (2001)

Origine and Evolution

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Origine and Evolution

- Another reason was that at the beginning machinery required up to 25 persons to operate.
- Today this has been reduced but machinery requires high training and specialization.
- No till technology is another reason for the expansion of contractor around Argentina.
- In the 90's large production pools originated and pushed even farther the need fro contractors.

Origine and Evolution

Cuadro 1
Explotaciones Agropecuarias – Provincia de Buenos Aires
Contratación de Servicios de Maquinaria Agrícola
 (en hectáreas y % del total implantado/cosechado)

	1988		1996		2001	
	ha.		ha.	% (1)	ha.	% (1)
Presiembra /siembra			5.413.119	50,8%	8.420.420	66,4%
Fertilización / Pulverización			3.925.189	36,8%	7.109.050	56,0%
Cosecha			6.022.084	72,0%	6.493.011	72,3%
Siembra directa /otros			396.163	3,7%	1.604.331	12,6%
Total			7.986.994		15.756.554	23.626.812
Cantidad de EAP que demandan servicios /Total de EAPs			48%		56%	62%

Fuente: CNA 1988 y las ENA 1996 y 2001. INDEC y DPE.

Nota: (1) en % del total implantado, salvo para las tareas de Cosecha que se expresa en % del total cosechado

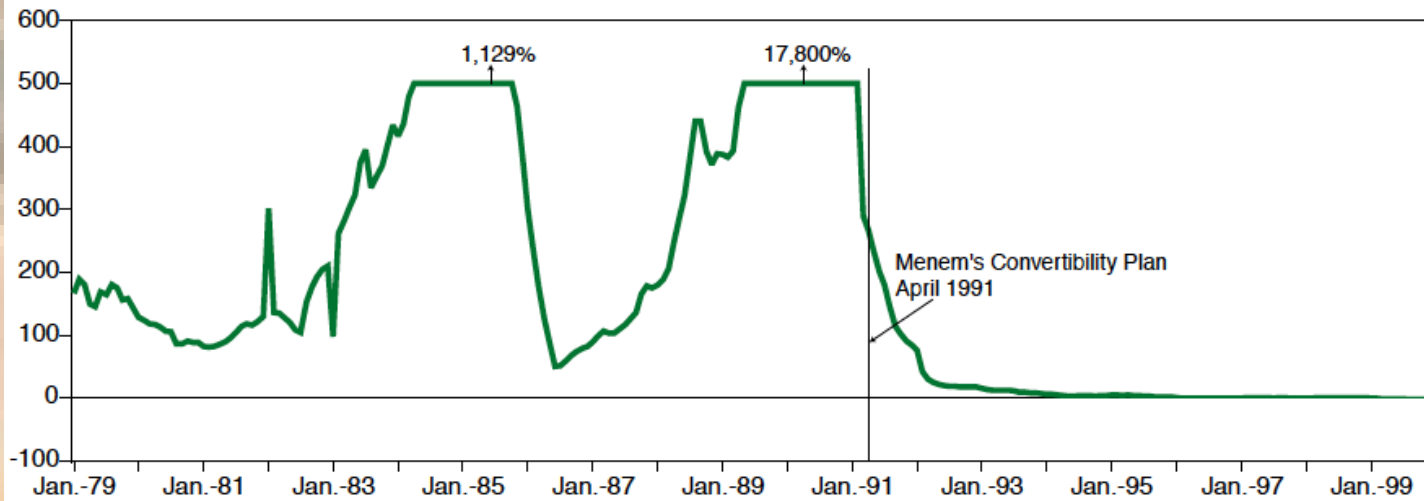


LAND MARKETS

THE 90's

Argentina has suffered from bouts of severe hyperinflation*

Rate of inflation (%)



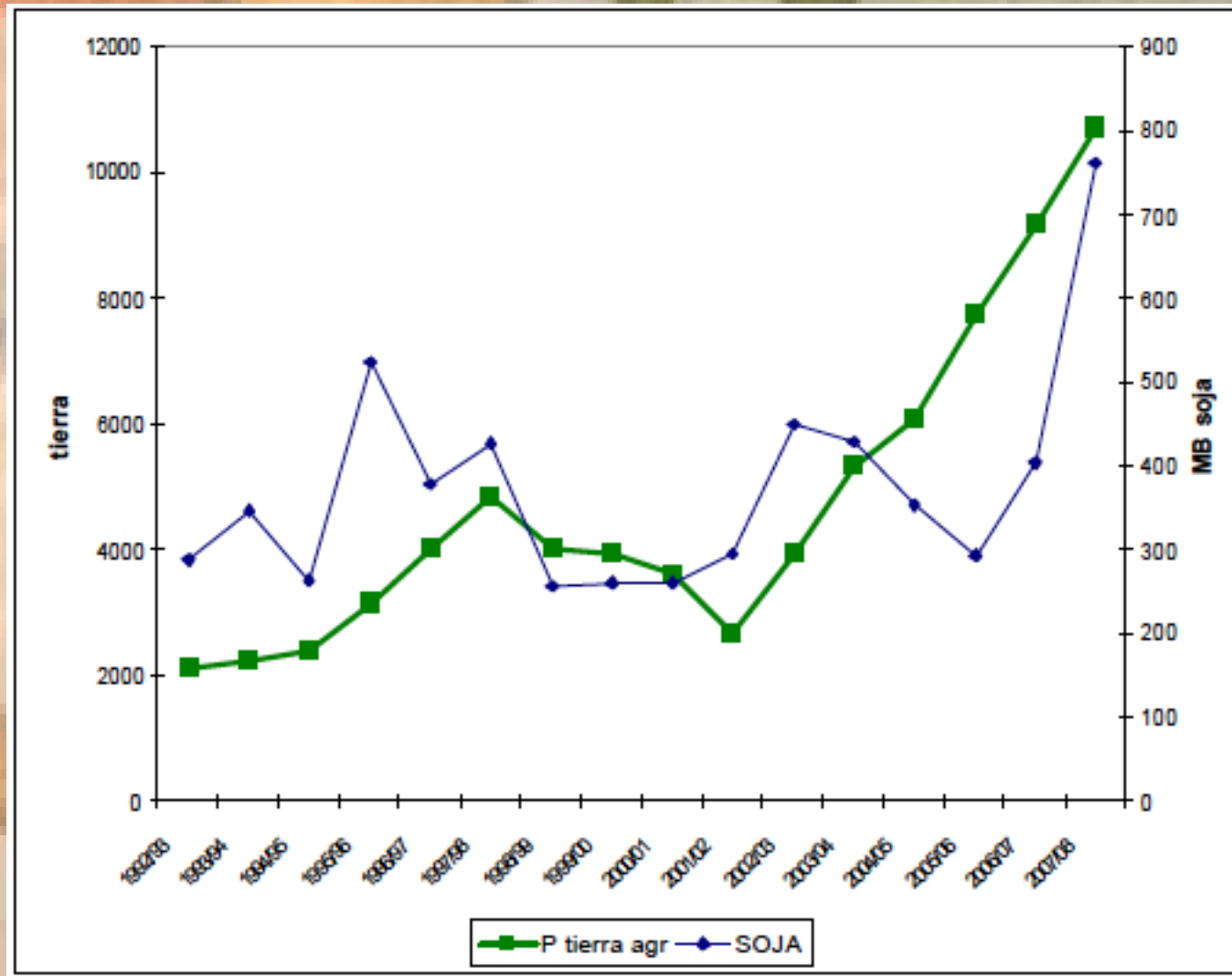
*Monthly observed annual inflation rate based on CPI data. Scale capped at 500 percent to facilitate presentation.

Source: IFS/IMF.

THE 90's

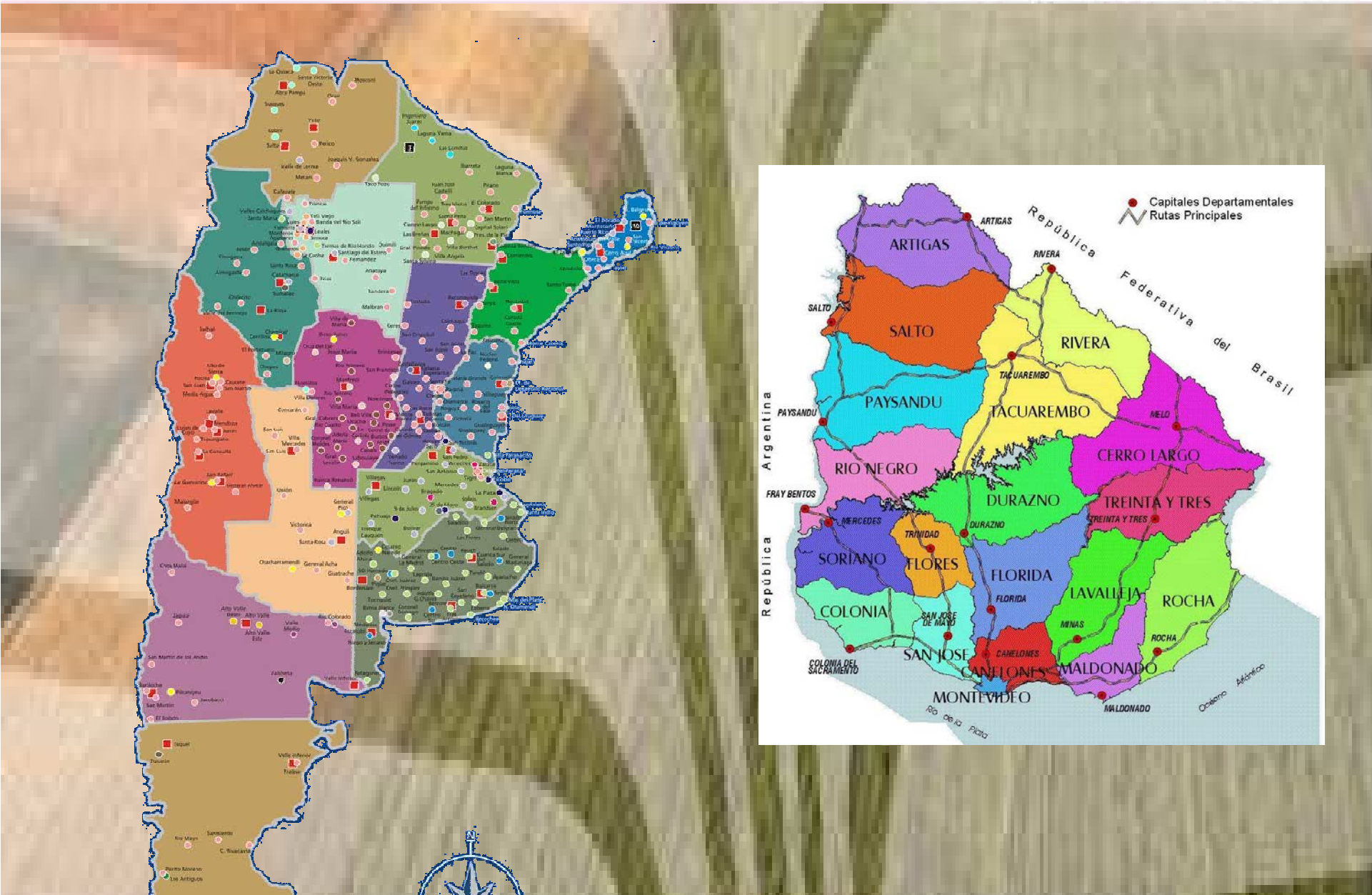
- Convertibility Plan
- Elimination of Export Taxes
- Elimination on restrictions to import Ag. Inputs
- Tax exemption on capital goods imported
- Elimination of government commodity agencies holding export monopolies.
- Privatization of Marketing and Transport infrastructure.

Land Value



Source: Inta

Regions





THANK YOU!



Headquarters:

Cerrito 1070, 11th floor,
PO Code (1010)
Ciudad Autónoma de Buenos Aires - Argentina
