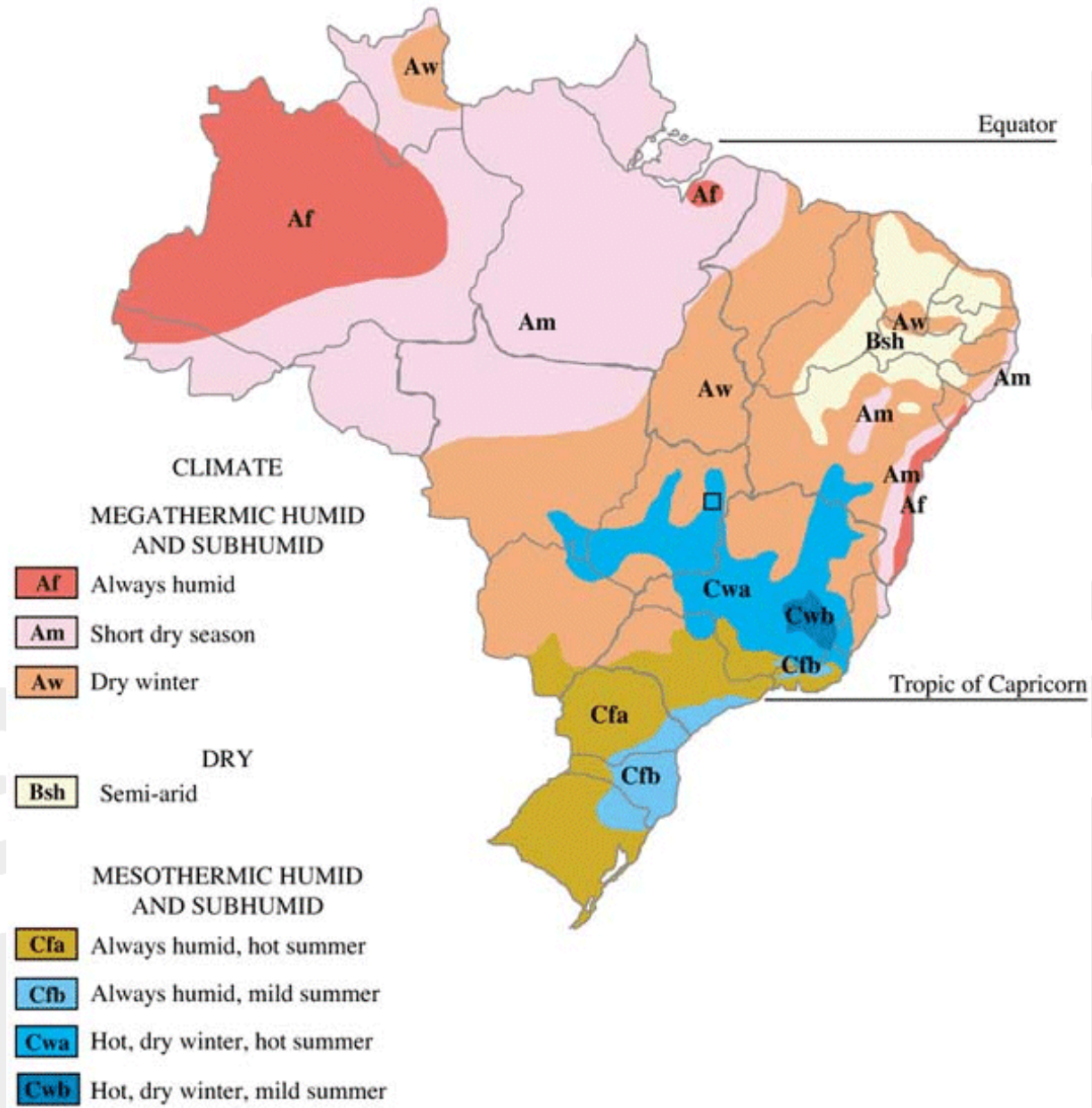


Brazil Climate



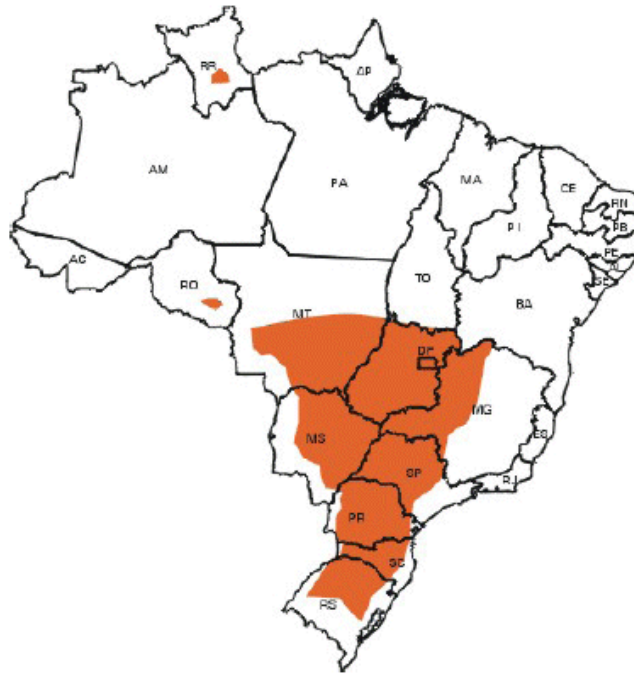
Source: <http://www.guianet.com.br/brasil/mapaclima.htm>

Brazil Soybean Expansion

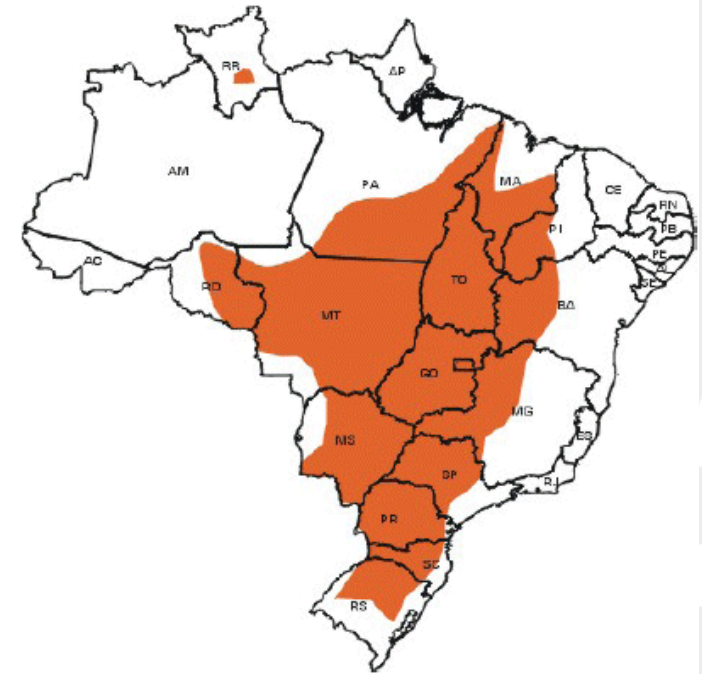
1960



1975



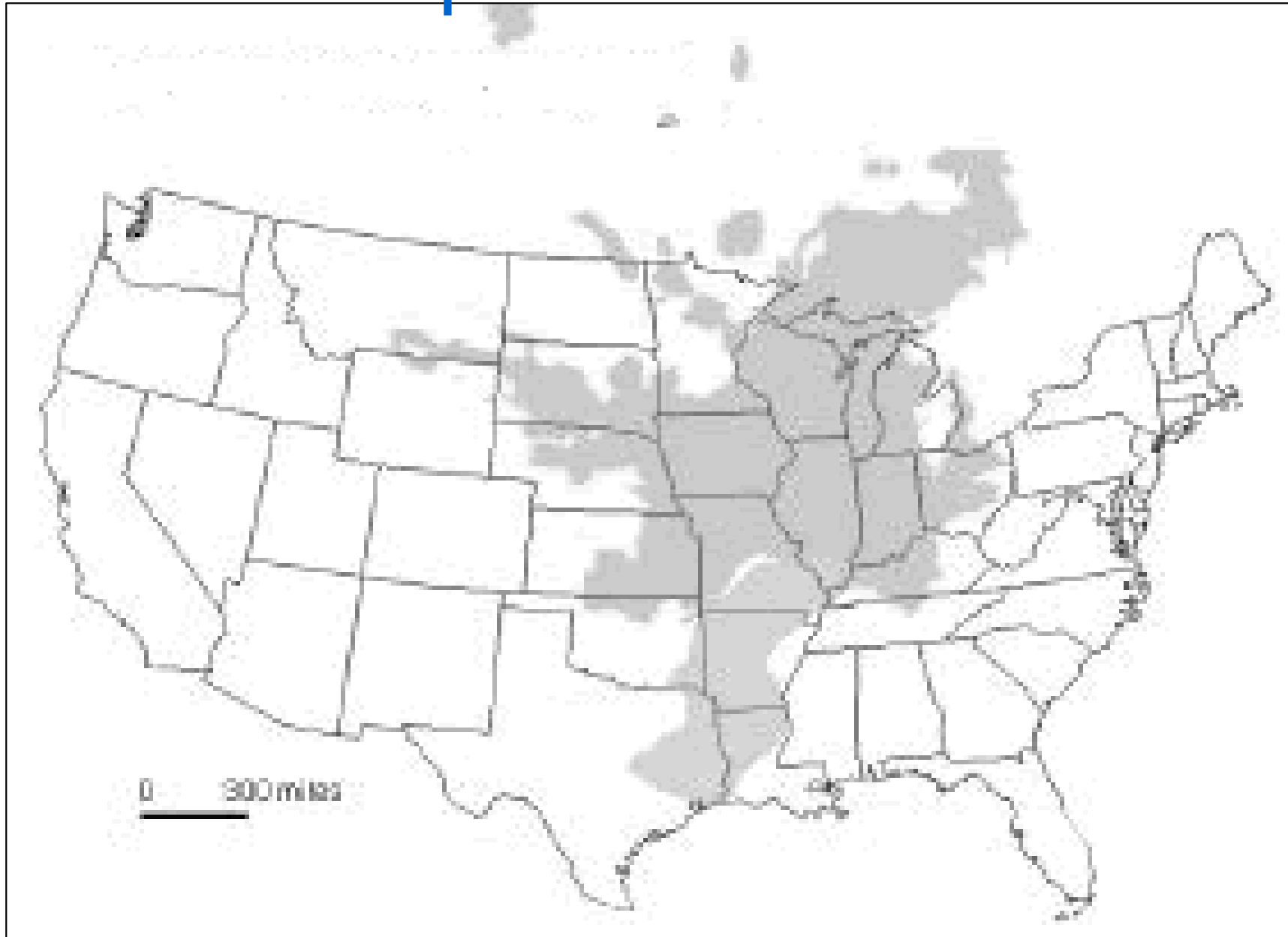
2002



**396 ADAPTED CULTIVARS, BIOLOGICAL N₂ FIXATION
MANAGEMENT, PESTS and DISEASE CONTROLS**

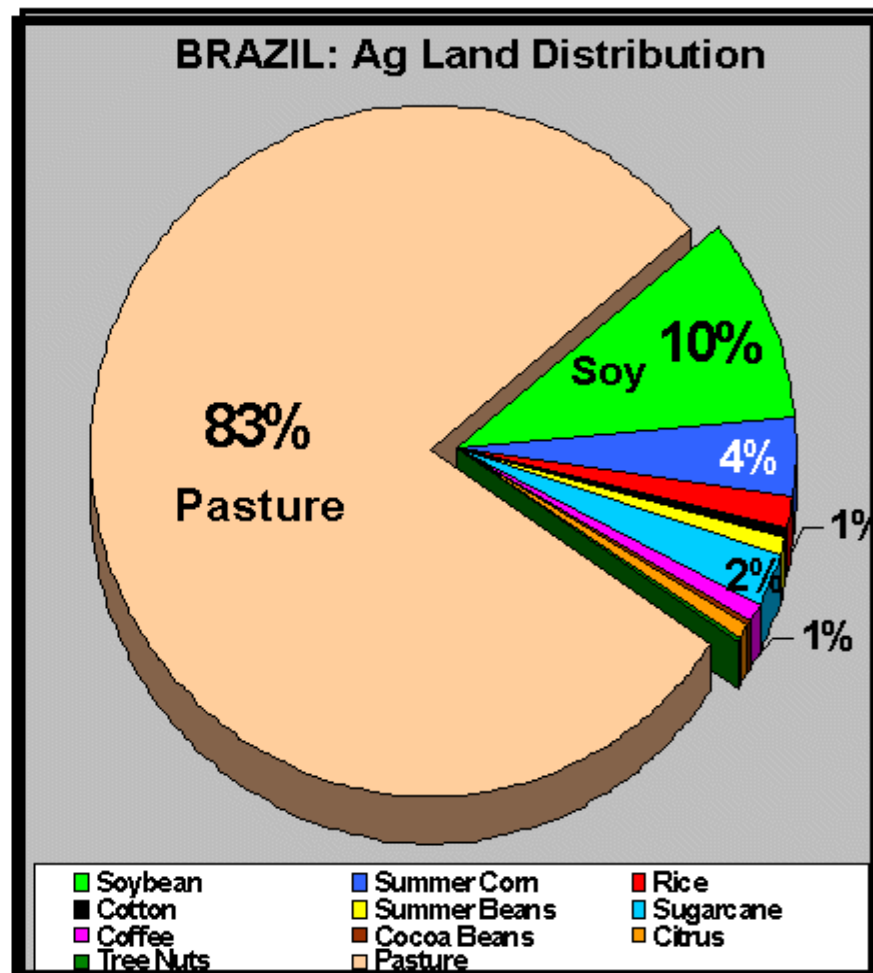
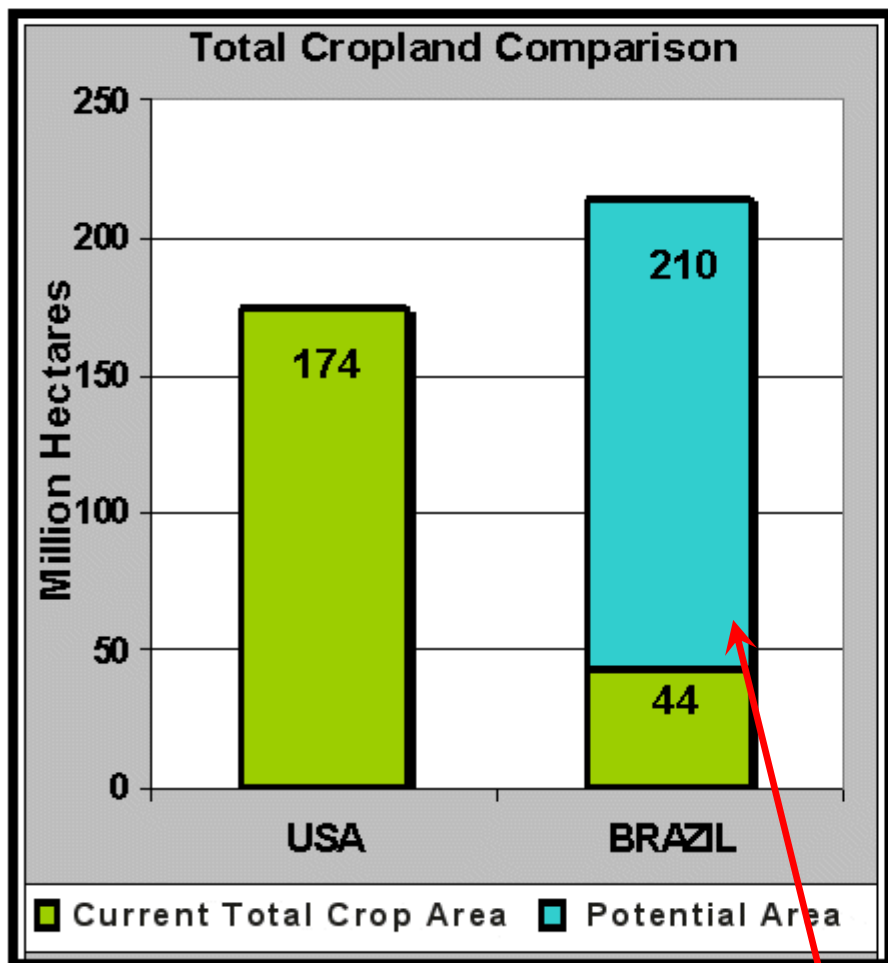
(Souza et al., 2003)

Brazilian Soybean Area Compared to the US



Source: Leibold, K., Brazil's soybean production, AgDM newsletter article, September 2001

Scope of Potential Agricultural Expansion

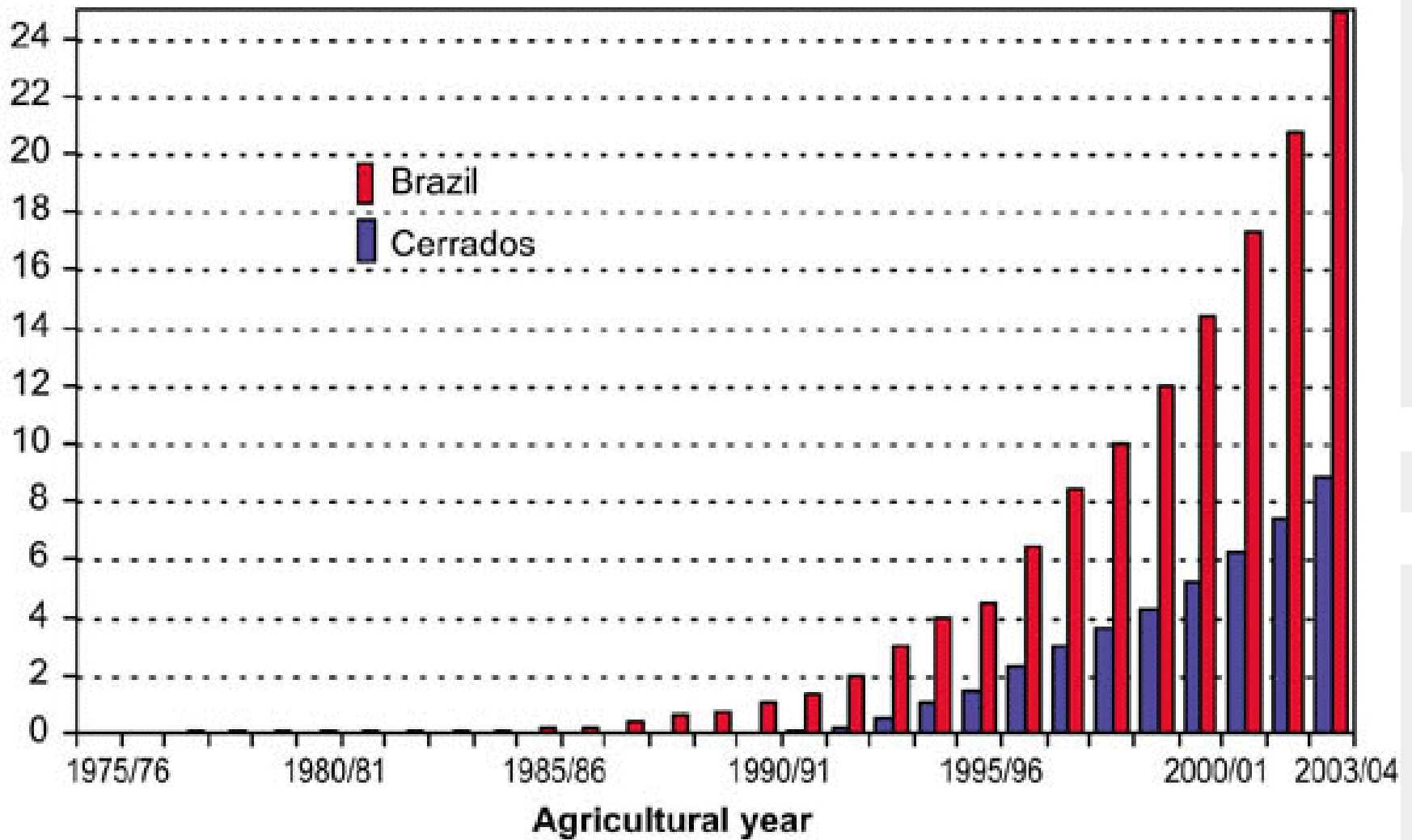


18 million hectares of pasture in *cerrados* can be converted to cropland, according to the Embrapa Cerrados research institute located at Planaltina, District Federal

Cropland Expansion in Brazil

Development of no-till cropping in Brazil and in the *Cerrado* region

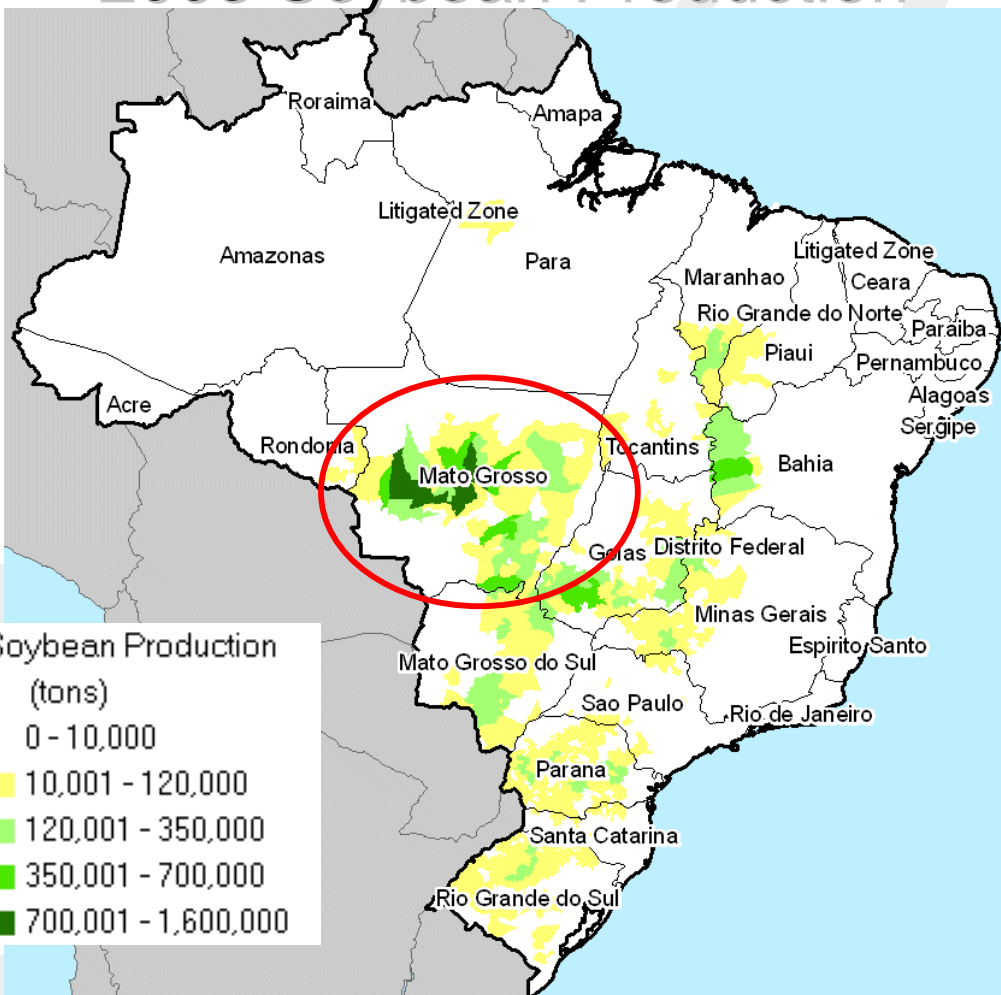
Million ha



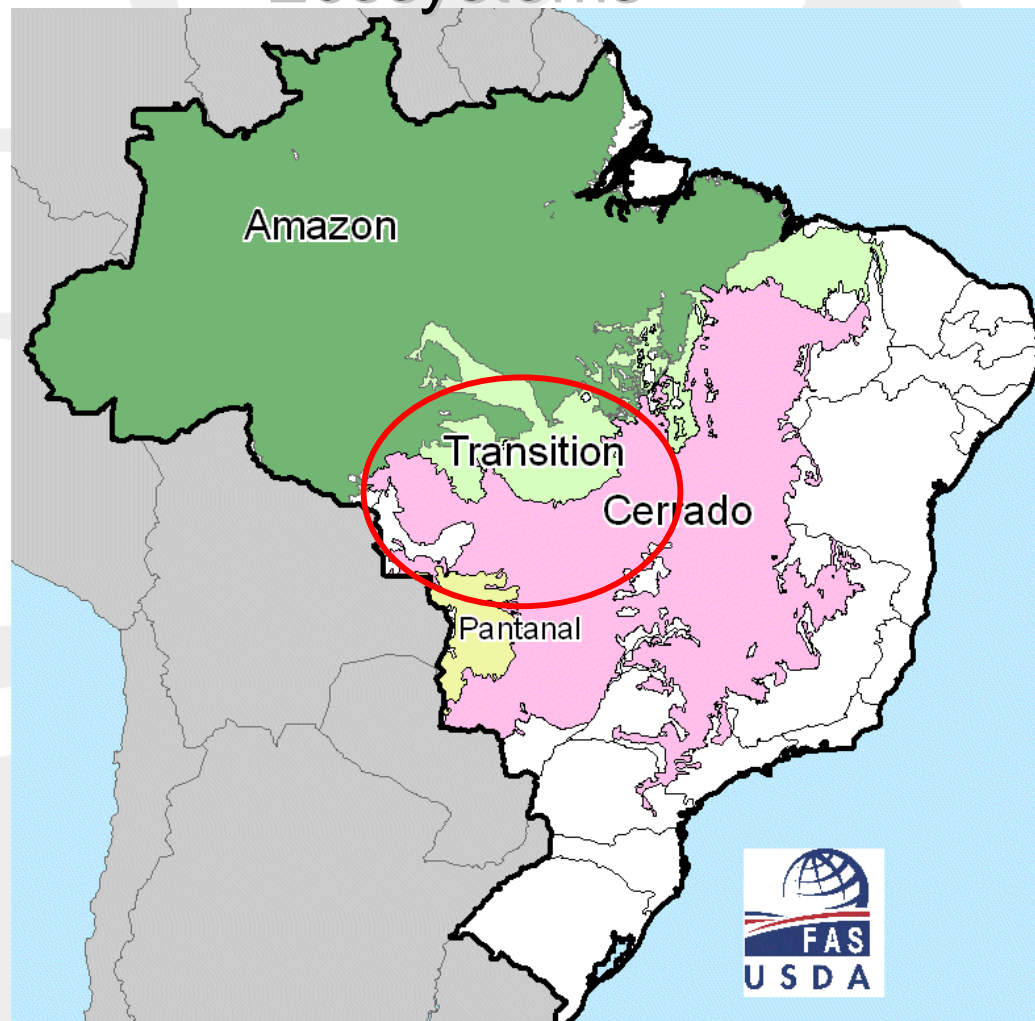
Source: Federação Brasileira de Plantio Direto na Palha (FEBRAPDP), 2003.

Soy Area Expansion Occurred in Cerrado Soils and Outer Fringes of the Amazon

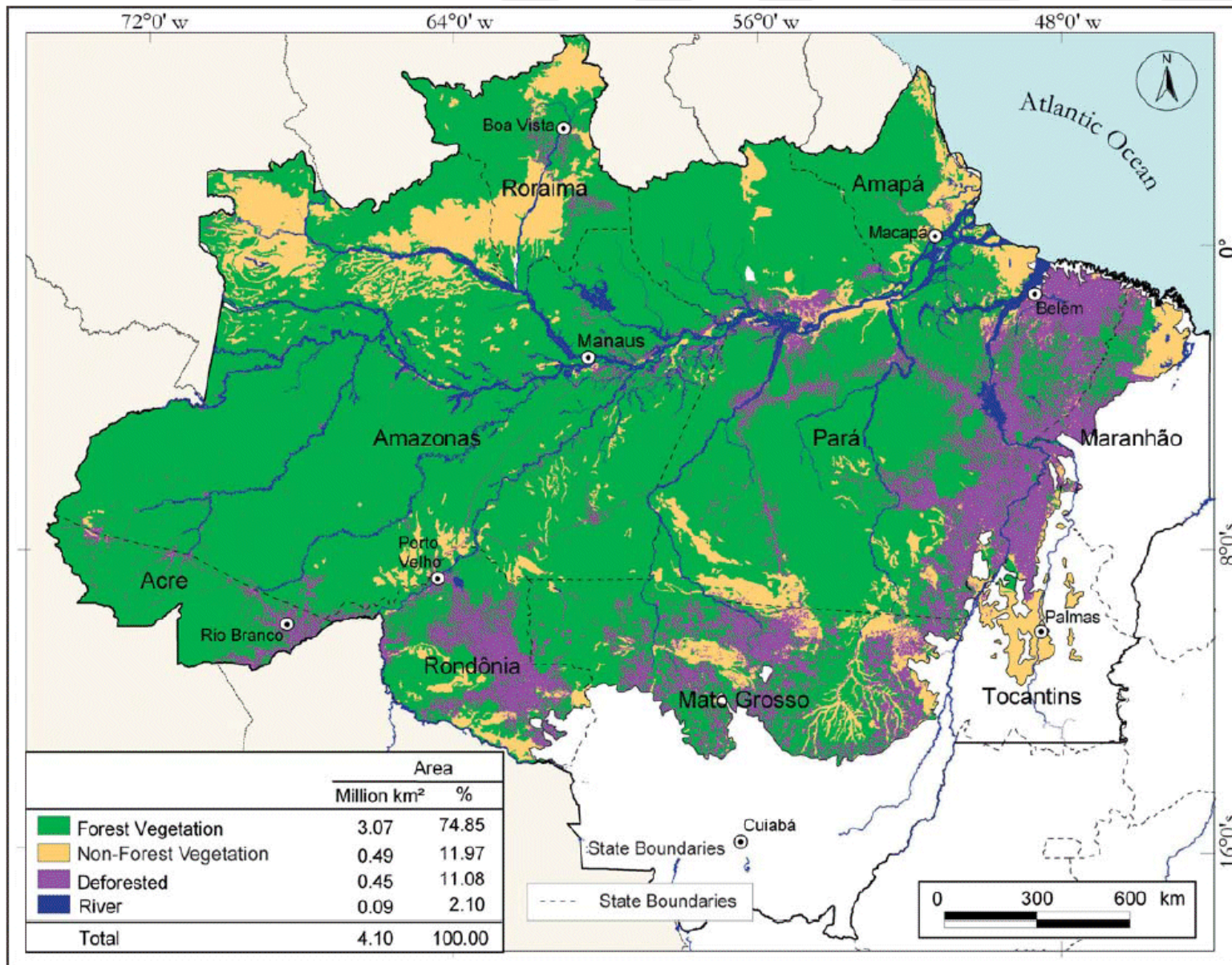
2005 Soybean Production



Ecosystems

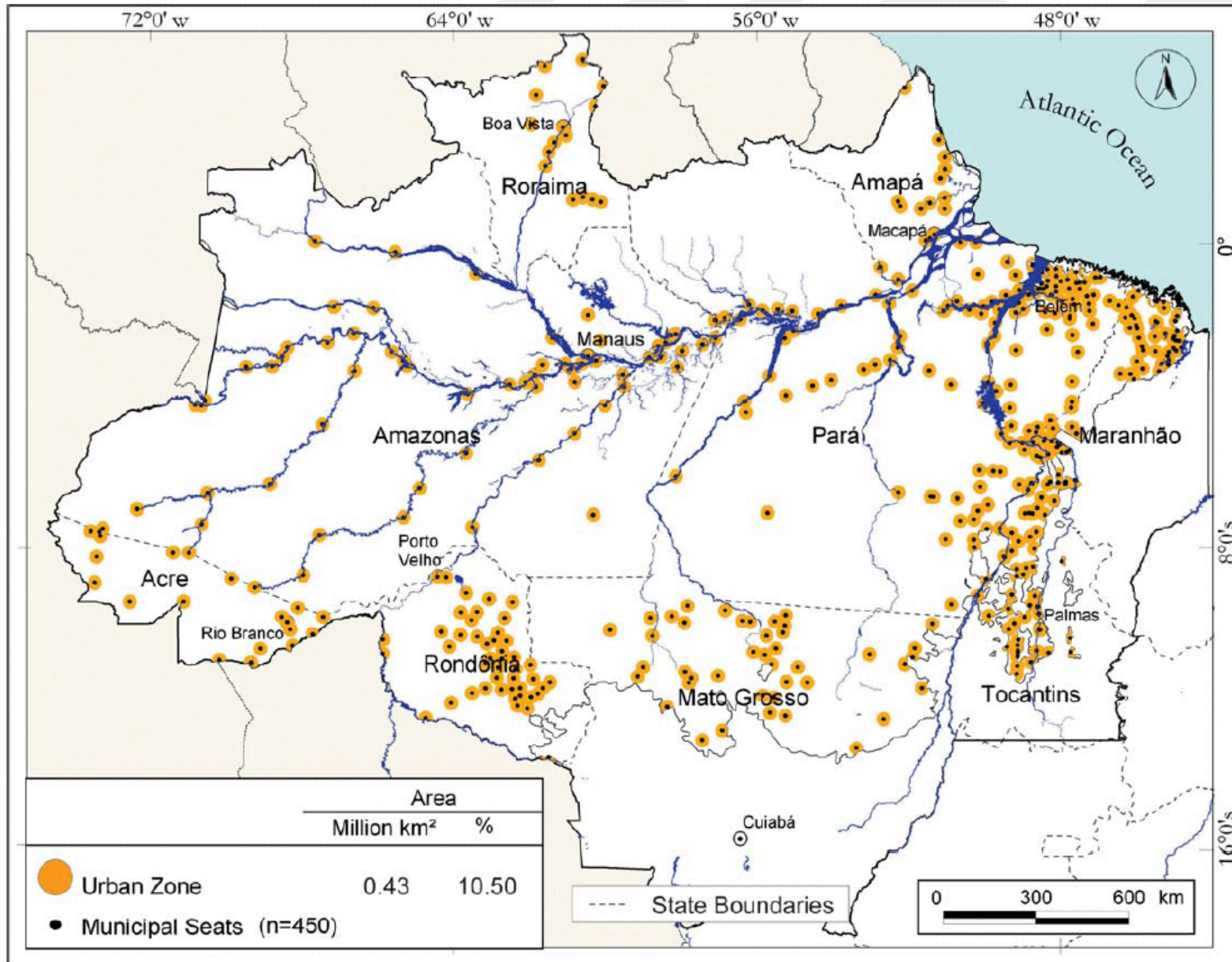


Amazon Deforestation



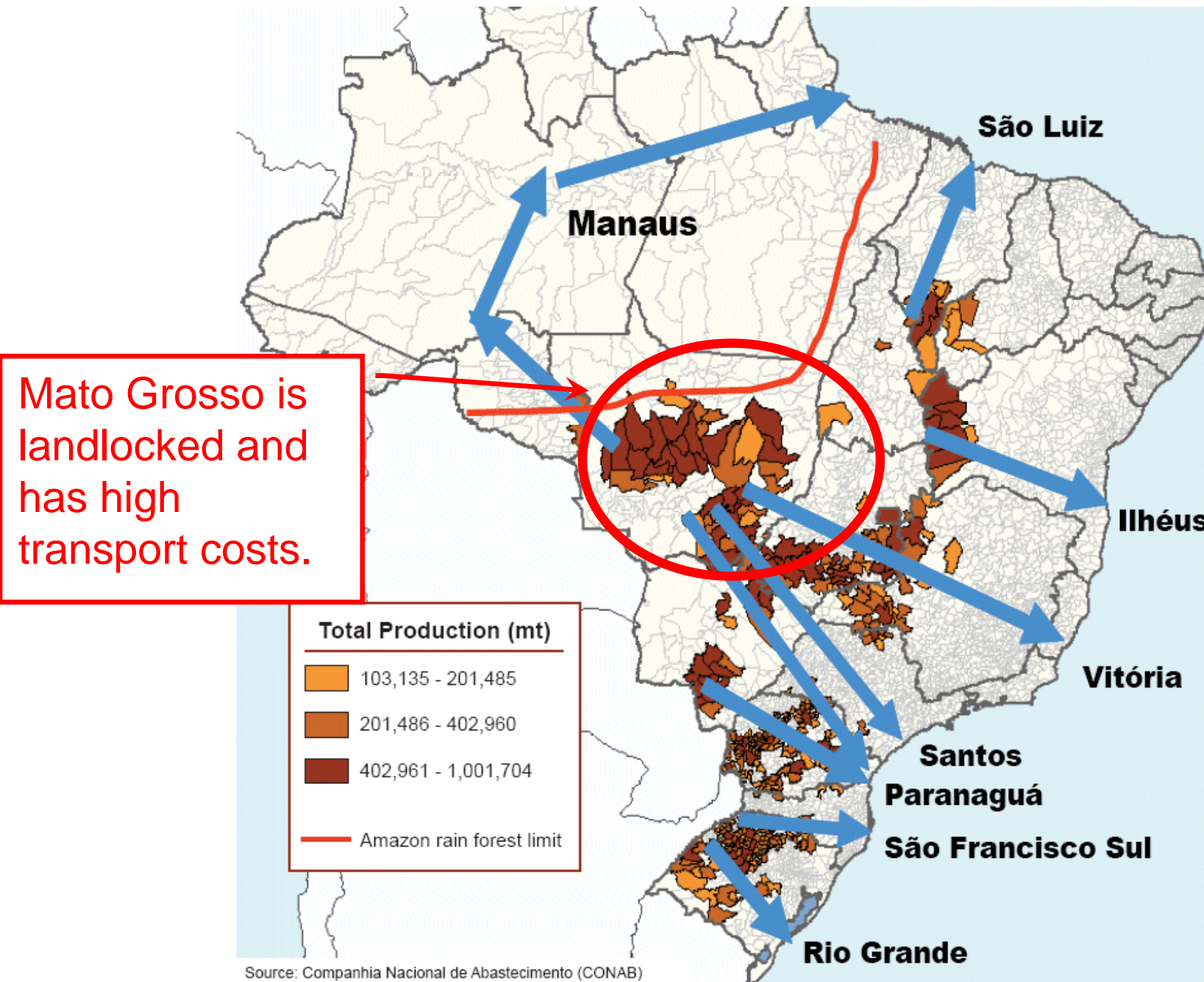
This map was created by overlaying the INPE map of deforestation as of 2001 over the map of vegetation by IBGE (IBGE 1997).
Scales of maps: Deforestation (1:250,000). The scale of the vegetation map was 1:2,500,000. The scale of this which aggregates all types of forest is 1:1,000,000.

Urban Pressure on Amazon



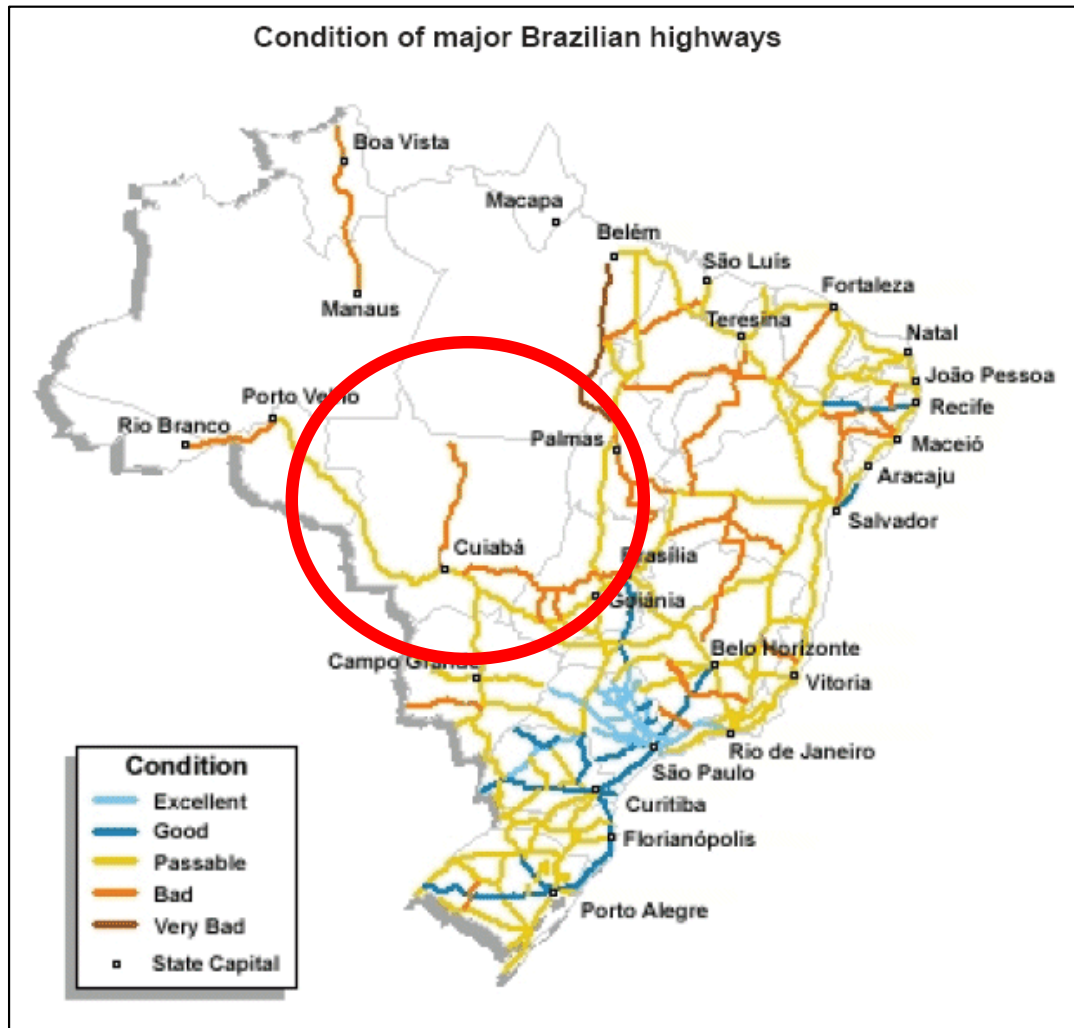
A 20-km wide radius surrounds the location of the 450 municipal seats in the Brazilian Amazon, to estimate the extent of human pressure from these centers. See Section III for details. *Source:* IBGE 1997.

Main Soybean Export Routes



Mato Grosso is landlocked and has high transport costs.

Roads & Rails in Poor Conditions



Source: USDA/AMS/Soybean Transportation Guide

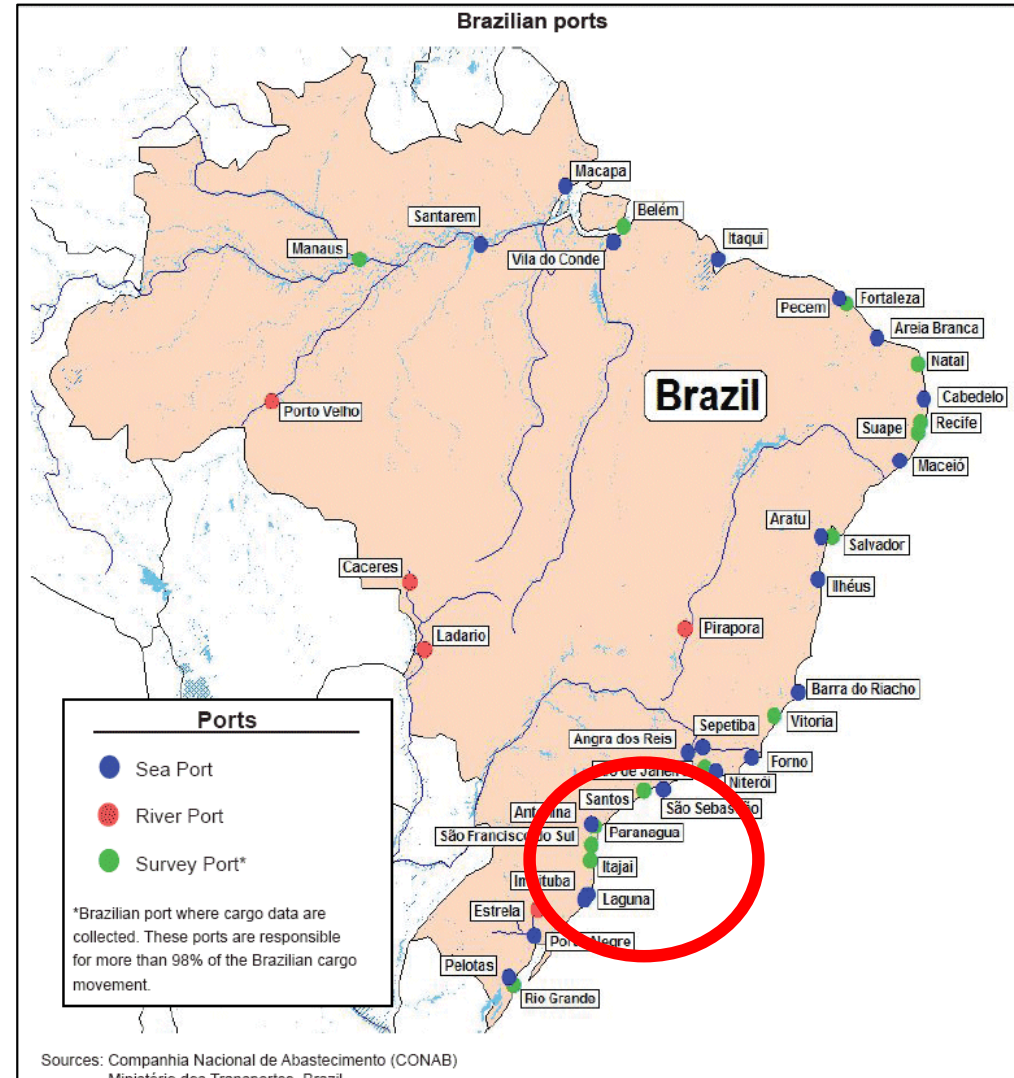
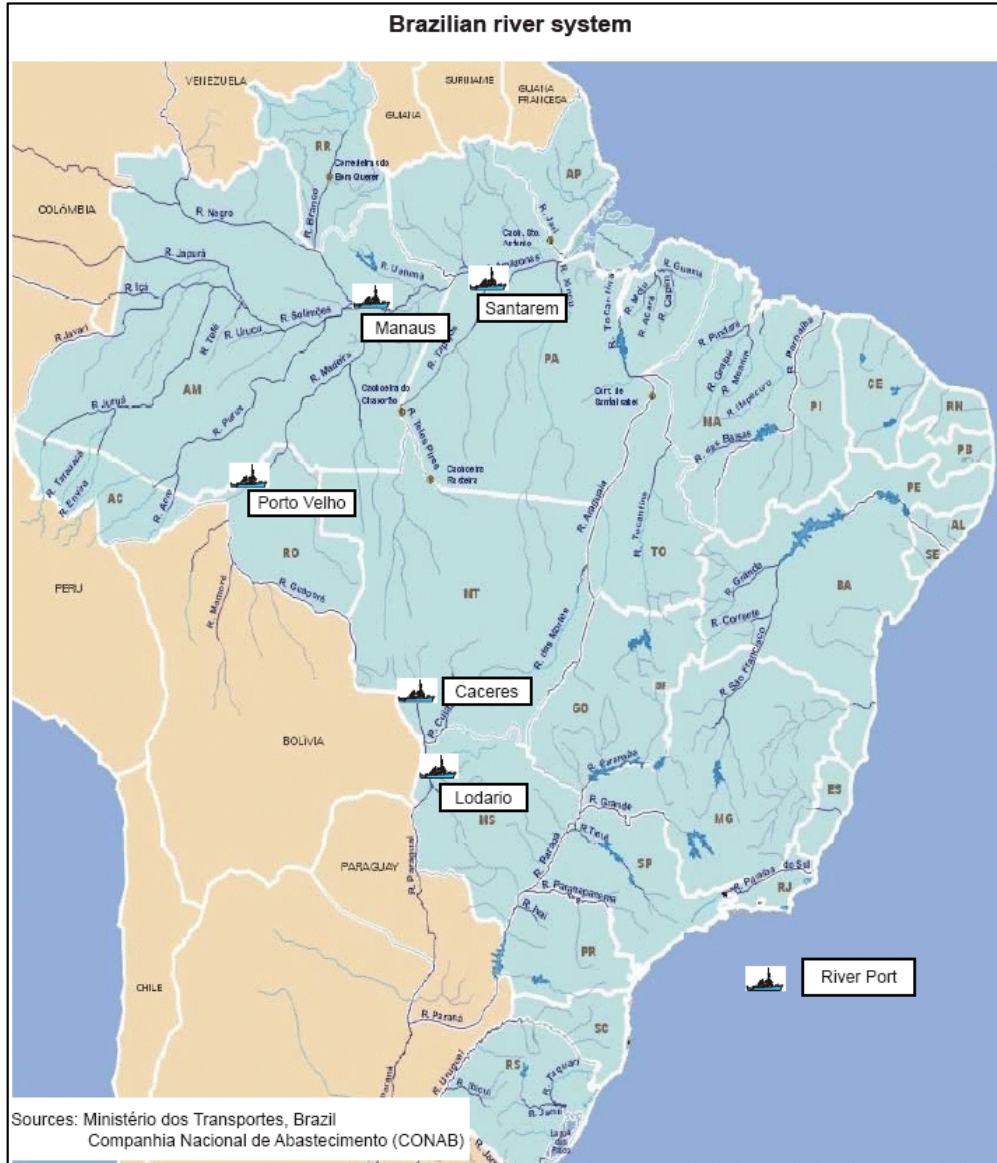
Proposed Railroads



Source: National Association of Rail Transporters (ANTF)

Source: USDA/AMS/Soybean Transportation Guide

Bottlenecks in Southern Ports and Undeveloped Ports in the North

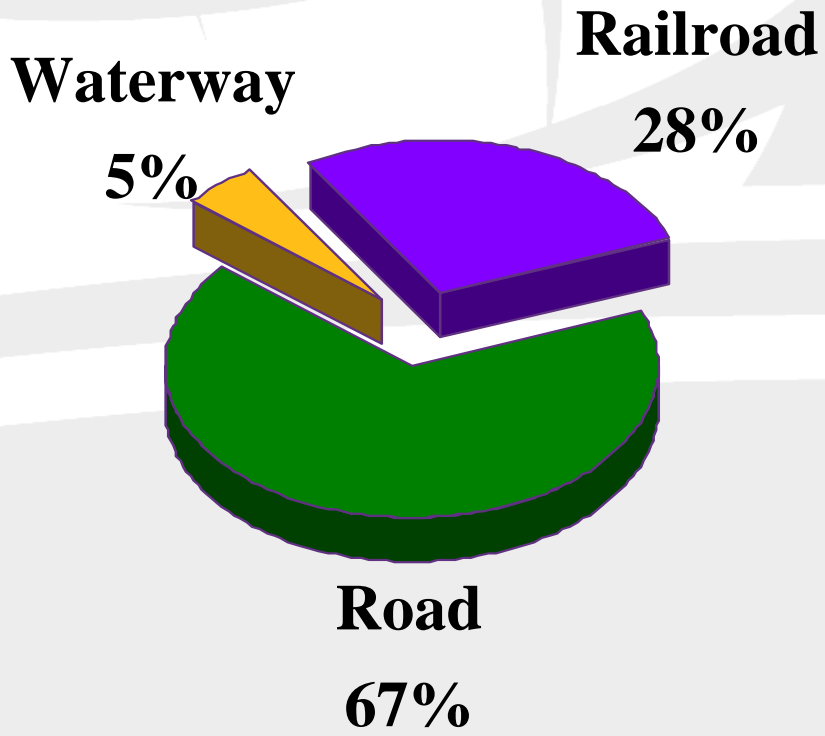
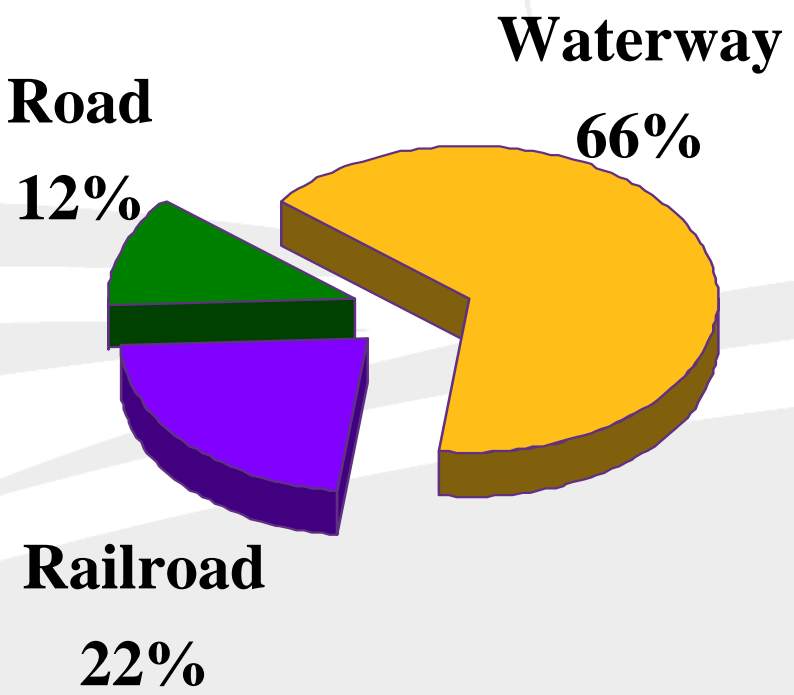


Source: USDA/AMS/Soybean Transportation Guide

U.S. and Brazilian Soybean Transportation to Port by Mode

U.S.

Brazil



BRAZILIAN ROADS

Source: BUNGE

BR – 163 BETWEEN NOVA MUTUM AND LUCAS DO RIO VERDE-MATO GROSSO STATE

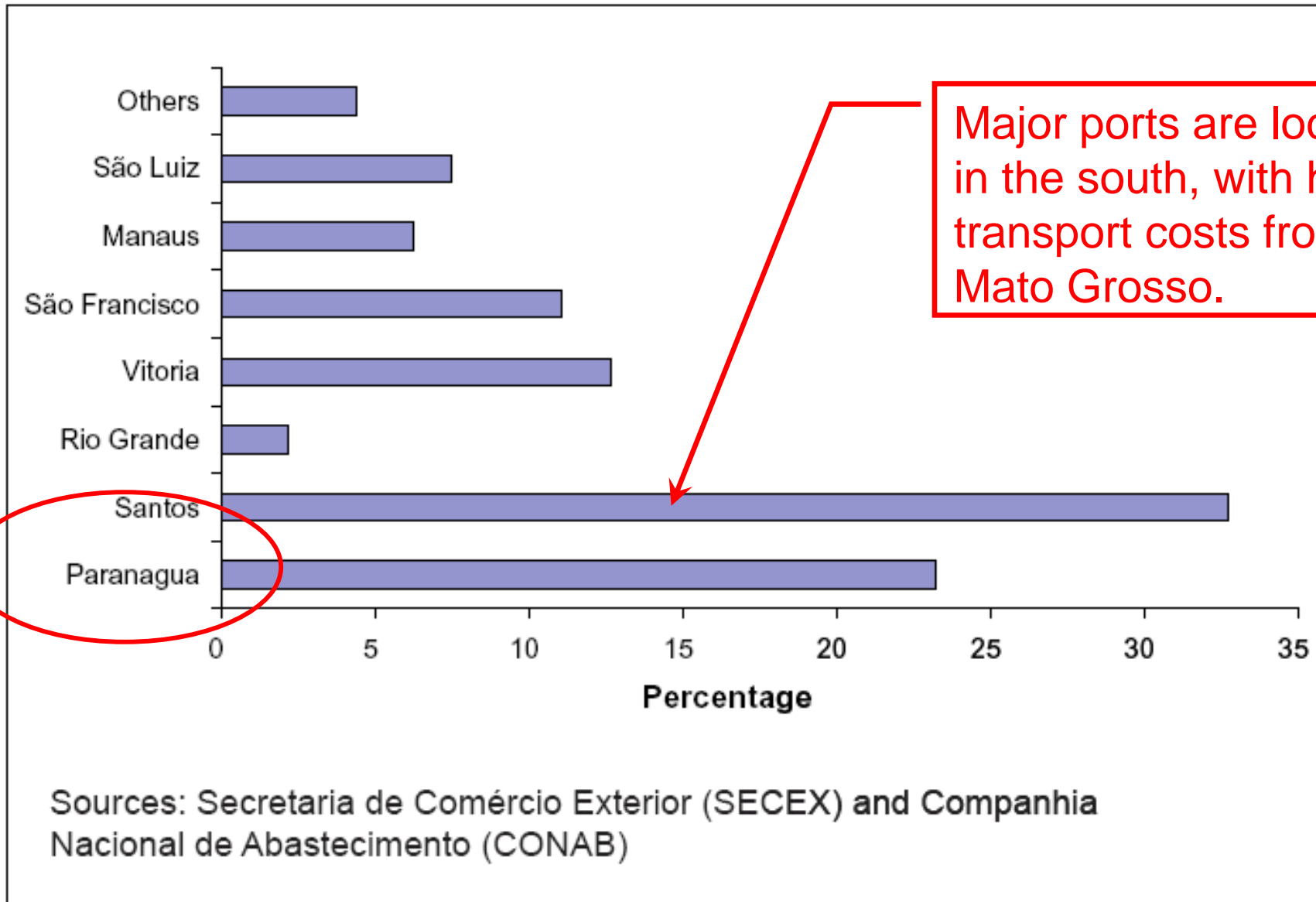


ARRIVAL AT PORT OF SANTOS, SÃO PAULO

Source: BUNGE



Soybean Exports (%) by Port

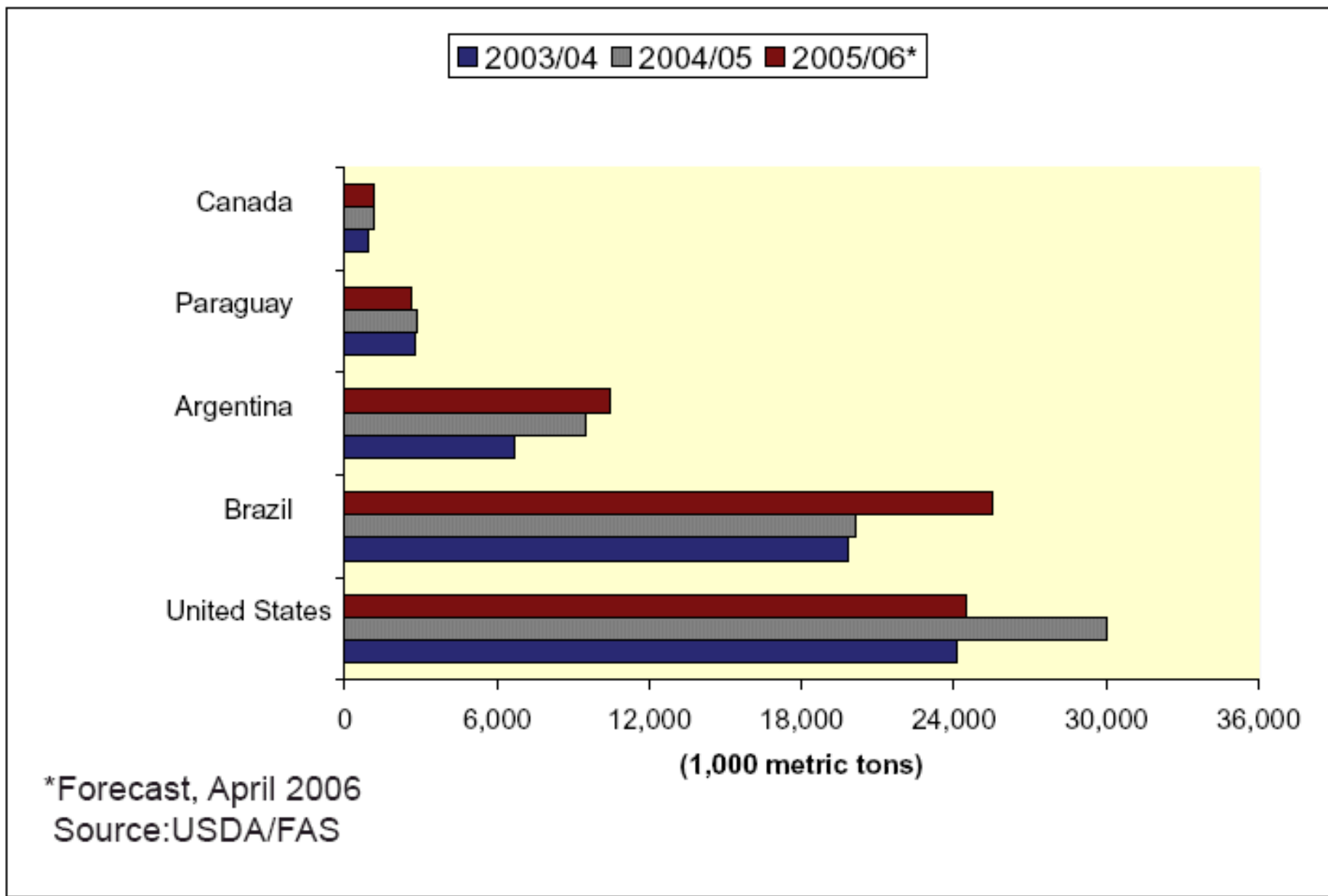


Proposed Transportation Improvements for Roads, Rail & Rivers



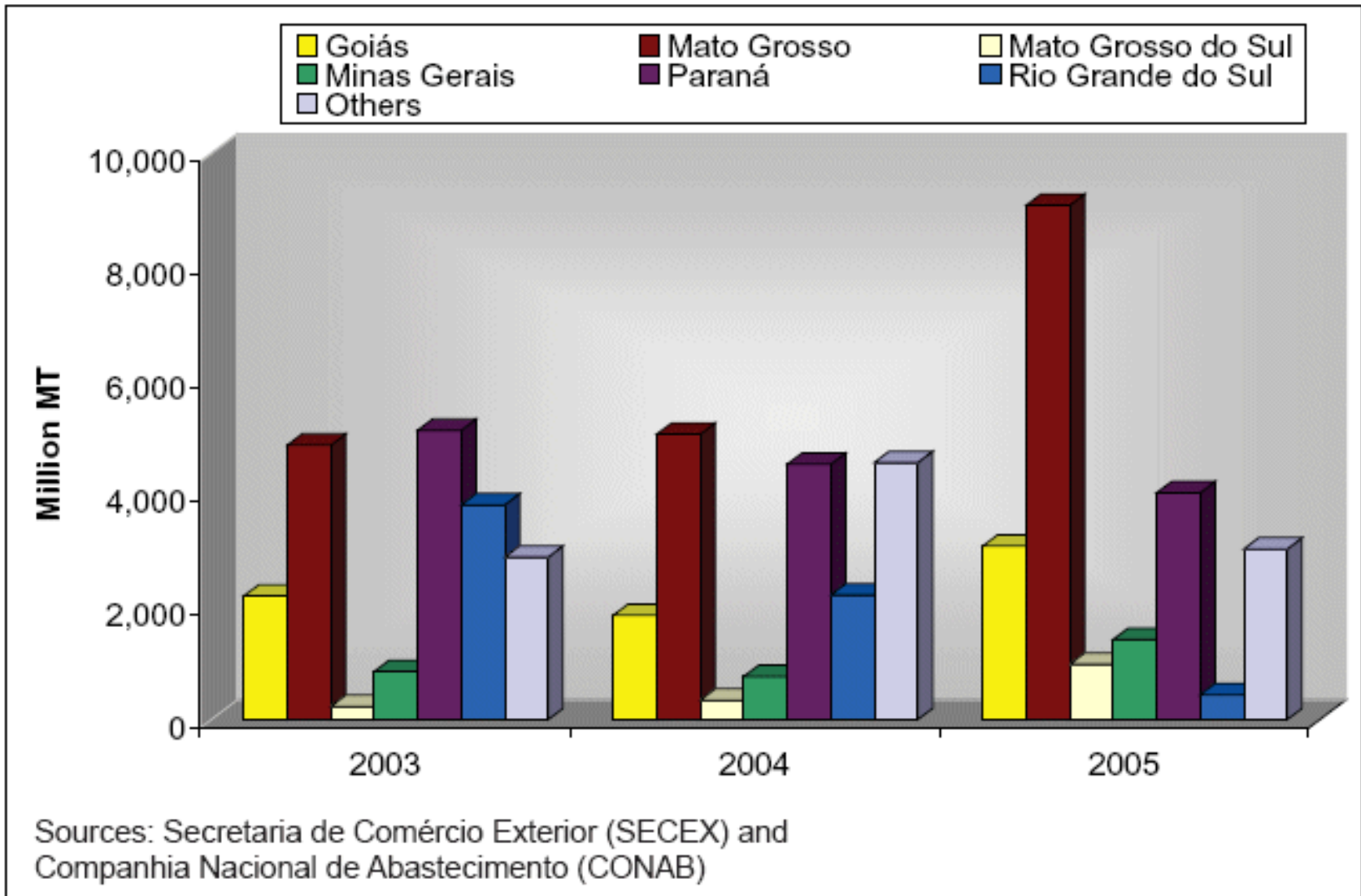
Source: Schnepf, Dohlman, and Bolling, 2001, Agriculture in Brazil and Argentina, ERS, USDA, Agriculture and Trade Report, WRS-01-3

Top 5 Soybean Exporting Countries



Mato Grosso is Largest Exporting State

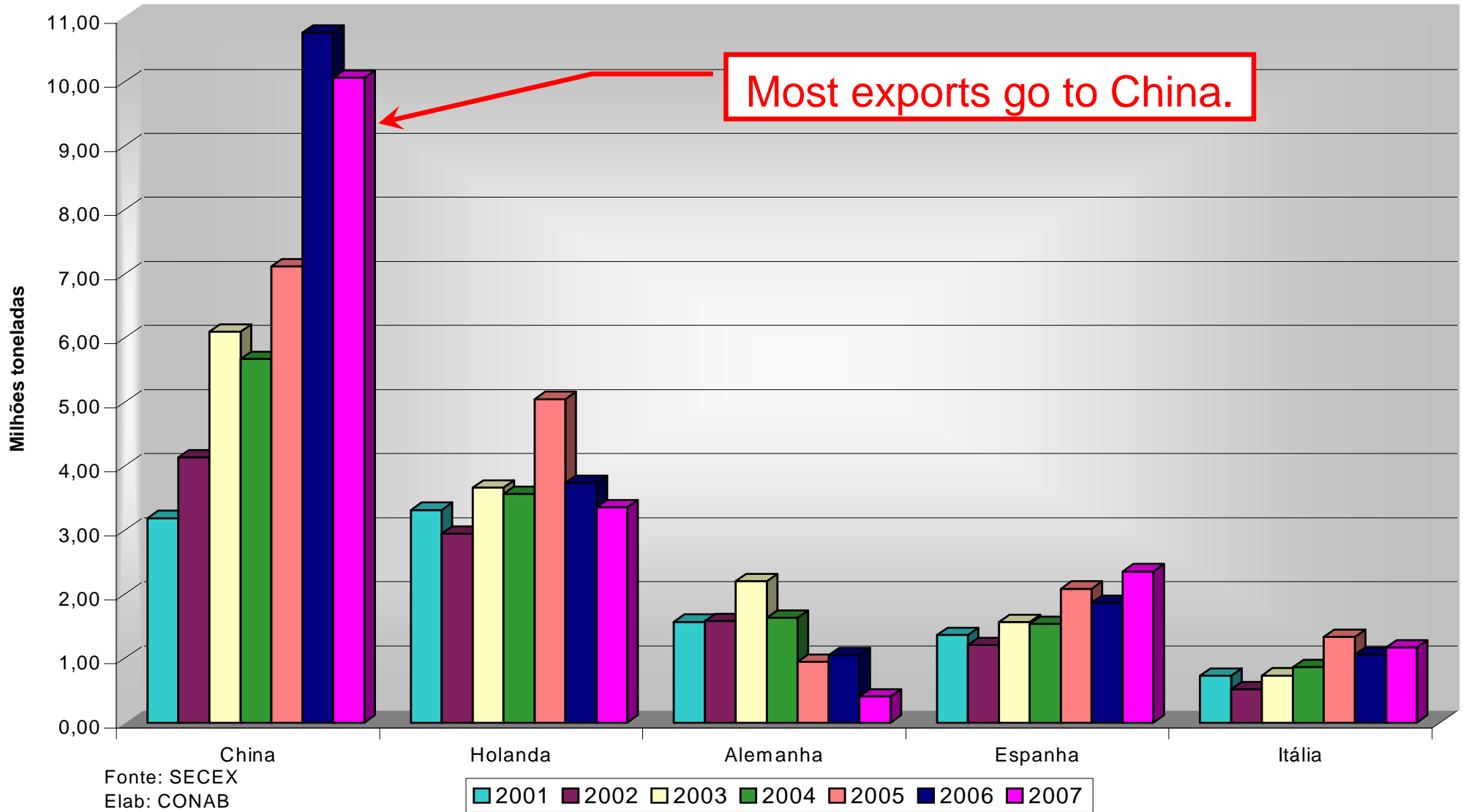
Top 6 Brazil soybean exporting states



Source: USDA/AMS/Soybean Transportation Guide

Top 5 Soybean Export Destinations

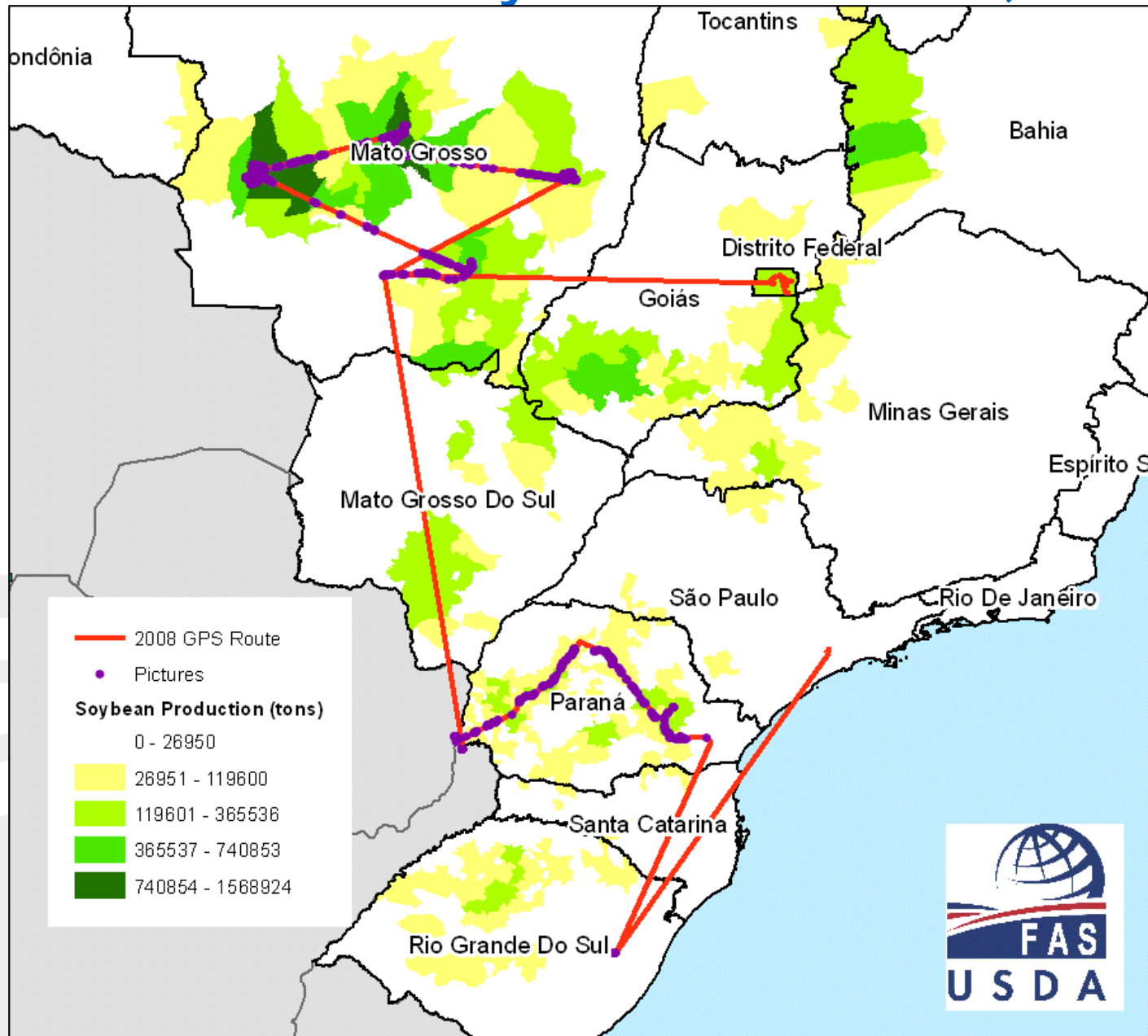
BRASIL - Exportação Soja Grão
Principais Destinos



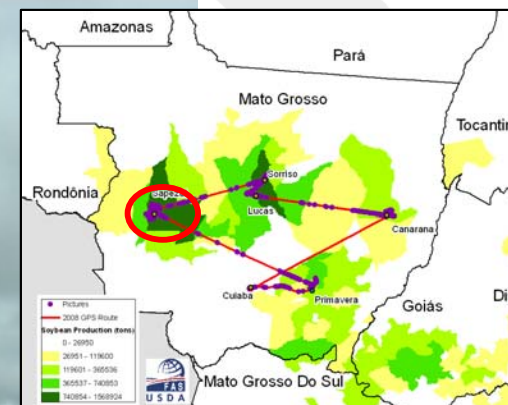
Keys to Future Growth

- Area growth in Cerrado soils
 - Convert abandoned pastures to crops
 - More feedlots being built in Mato Grosso
- Yield growth
 - Development of tropical varieties resistant to pests & fungal diseases
 - Better yielding early-season varieties which allow two crops per year
 - Less mono-cropping and more crop rotation to control Asian rust and nematodes.
 - In-country fertilizer production
- Infrastructure development (roads, rails, and ports) for Mato Grosso

GPS Crop Tour Route with POST from February 13-March 5, 2008



Two Crop Seasons (Sept.15th-Jan & Feb-May): Summer Corn (left) & Winter Corn (right)



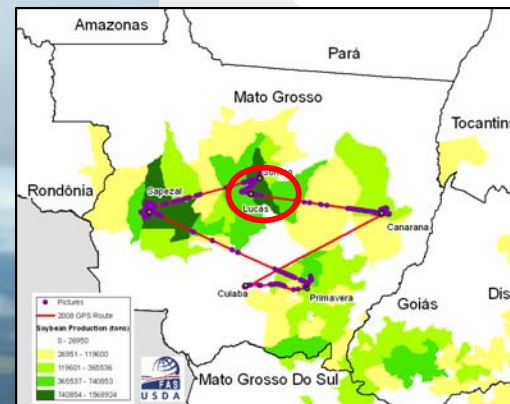
Winter corn is typically planted on same day as the summer soybean harvest (i.e., February).

S 13° 32.174' W 058° 55.307'

575 m

02/26/2008 11:19:22 AM

Large Fields & Different Crop Stages



Green fields indicate different crop stage and crop seasons.

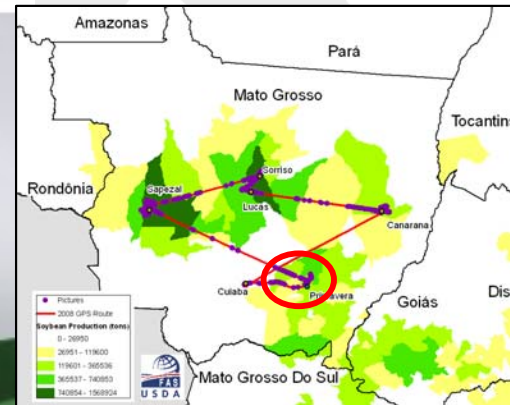
Section not yet harvested.

S 13° 35.265' W 058° 35.261'

1813 m

02/26/2008 10:16:47 AM

Large John Deere Harvesters at Primavera do Leste, Mato Grosso



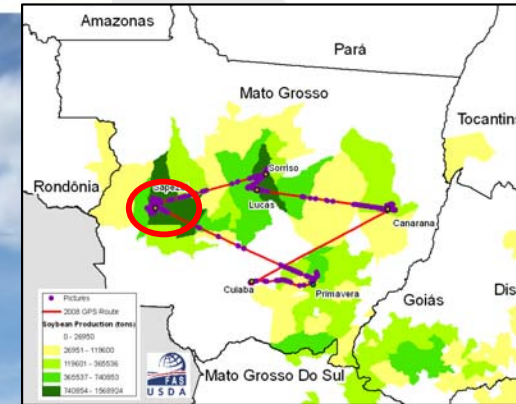
Imported farm equipment is now cheaper in Brazil due to weak US dollar.

S 15° 24.887' W 054° 14.955'

579 m

02/25/2008 5:22:35 PM

Soybean Rust

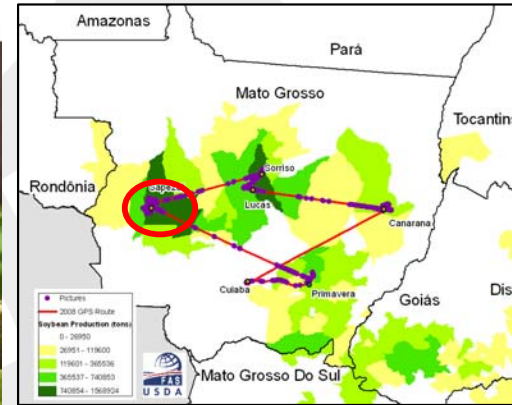


S 13° 19.275' W 058° 52.511'

536 m

02/26/2008 2:53:57 PM

Soybean Rust

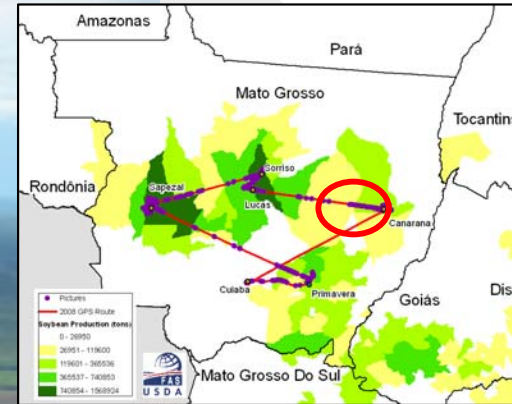


S 13° 19.274' W 058° 52.511'

536 m

02/26/2008 2:53:46 PM

Soybeans next to Forest

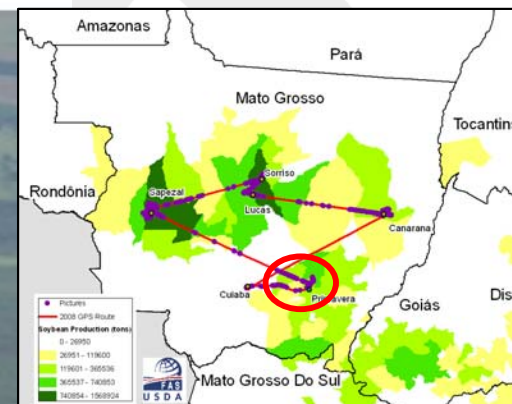


S 13° 33.535' W 052° 23.514'

997 m

02/28/2008 9:45:37 AM

Cattle, hog, and poultry feedlots are increasing in Mato Grosso



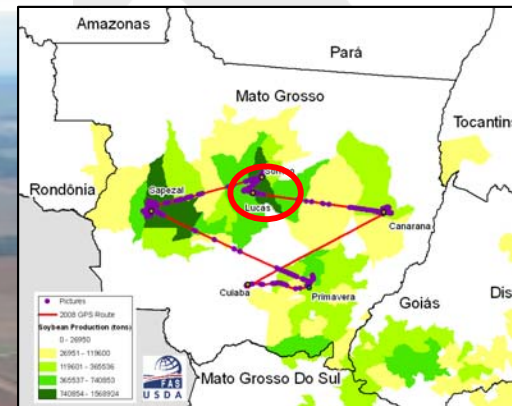
Feedlots

S 15° 33.711' W 055° 12.882'

1705 m

02/25/2008 3:05:11 PM

Poultry factory under construction at Lucas do Rio Verde, Mato Grosso



New poultry factory will employ 6000 people.

S 13° 00.369' W 055° 56.039'

690 m

02/28/2008 8:26:17 AM