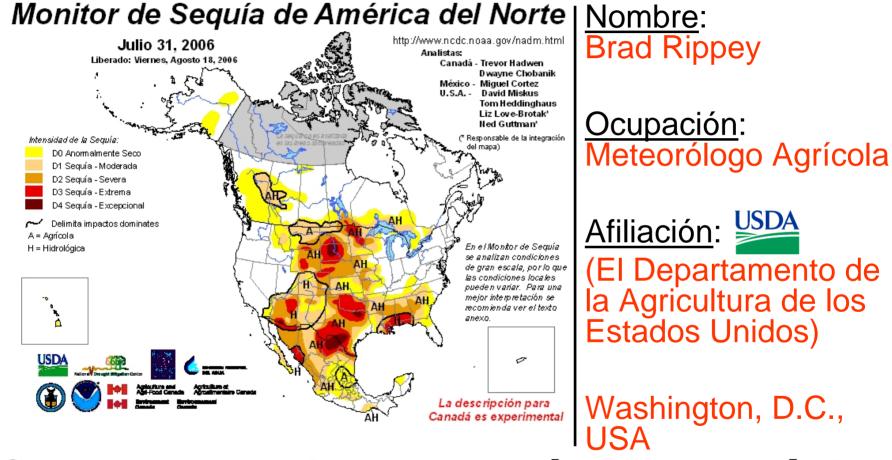
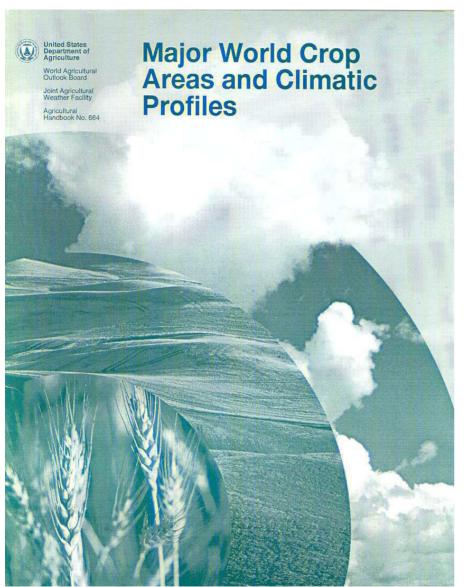
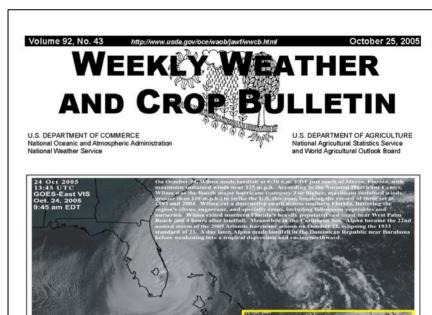
# Mexican Agricultural Weather Monitoring from USDA's Perspective



Controlar el Tiempo Agrícola de México de la Perspectiva de USDA

# Sample Products of the Joint Agricultural Weather Facility (U.S. Departments of Commerce and Agriculture)





#### HIGHLIGHTS

October 16 - 22, 2005

rior to the October 24 passage of Hurricane Wilma across southern Florida, mild, relatively tranquil weather prevailed across the United States. Significant precipitation was focused from the Southwest to the Northeast along the path of a compact disturbance. Near-to below-normal temperatures were confined to southern California and the Great Lakes region, while weekly readings averaged as much as 10°F above normal in the Northwest. Although Northwestern warmth promoted winter wheat emergence, more rain was needed to ensure

Contents	
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October 18 Drought Monitor &	
Total Precipitation Map	3
Extreme Maximum & Minimum Temperature	Maps 4
Temperature Departure Map	5
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Los Productos de la Facilidad Agrícola de Tiempo de USDA y NWS

## A Long History of Agricultural Weather Monitoring

May 6, 1922.

WEATHER, CROPS, AND MARKETS.

38

#### Crop Reports

#### SUBSTANTIAL GAIN IN CATTLE AND SWINE BIRTH RATE SHOWN

Strong Upward Swing during First Quarter of 1922 Indicated by Reports from 6,500 Farms,

Recuperation of the cattle hydustry on farms since Apr. 1, 1921, a time of low tide, is indicated by an increase in the birth rate of calves. The calf birth rate for the first quarter of 1922 was 12.91 per 109 cattle on hand Jan. 1, 1922, compared with 11.83 per 100 cattle on hand Jan. 1, 1921, as increase of 9%. These statements are based upon reports from about 6,500 farms which are well distributed throughout the United States.

The calf birth rate for the first quarter of the year sharply declined from 14.34 pet 100 cattle on hand Jau, 1, 1919, to 11.83 for 1921, so that the rebound to the calf birth rate of 12.91 for 1922 indicates the beginning of a restoration in the cattle industry.

1821, 86 that the rebound to the Sal Outside of 12.01 for 1922 indicates the beginning of a restoration in the cattle industry. The swine birth rate of the first quarter that the second of the first quarter that the second of the first quarter than 1, 1929, a decline from a birth state of 1, 1929, a decline from a birth state of 1, 1929, a decline from a birth state of 1, 1929, and the swine birth rate for an in 1921, when the swine birth rate for the first quarter rose to 37.97 per 100 swine on than 1, 1921, and continued to the state of 41.76 for 1922, an increase of 16% very the same period in 1920. This increase was somewhat offset by an increase in death rate in death rate

Compared with cattle, swine are more quickly and largely responsive to causes of increase of number, which explains the large increase in the swine birth rate.

Changes in Live Stock on Farms, Jan. 1 to Apr. 1, 1919-1922.

	1919-19	122.		
Item.	1919	1920	1921	1922
CATTLE. On farms, Jan. 1	Per ct. 100, 00	Per et. 100.00	Per ct. 100.00	Per ct. 100.00
Births Brought on farms	14.34 8.41	12.04 7.27	11.83 6.16	12.91 6.37
. Increase	22.75	19.31	17,99	19.28
Moved off farms Farm slaughter Farm deaths	15. 86 1. 84 2. 51	14.94 1.43 2.64	12.43 1.55 1.63	12, 28 1, 67 1, 94
Decrease	20, 21	19.01	15.61	15.89
Remaining, Apr. 1	102, 54	100.30	102.38	103,39
SWINE. Births Brought on farms	38.94 11.80	35,95 9,16	37.97 9.89	41.76 9.68
Increase	50.74	45.11	47.86	51.44
Moved off farms Farm slaughter Farm deaths	37.59 12.01 5.45	30. 24 11. 74 8. 09	31.89 12.23 7.21	31.65 10/93 2.63
Decrease	55.05	50.07	51.33	51.91
Remaining, Apr. 1	95.69	95.04	96.53	99.53
K				

#### A Correction.

In the correction appearing or page 292 ft the Apr. 8 issue, the word "Buropean" the used instead of "non-European". The stence in which this error occurred should, berefore, read as follows: "In the table on see 244 of the issue of Mar. 18, 1922, the than number of cattle in non-European cunties before the war should be 276,759,000 del the grand total 309,870,000."

#### LOUISIANA'S CANE SUGAR CROP NOW PLACED AT 324.431 TONS

Largest Production in Ten Years-Production of Sirup Shown to be 6,454,388 Gallons.

The production of cane sugar in Louisiana from cane harvested in 1921 amounted to 324,431 tons, according to the final report of the U.S. Department of Agriculture. This amount is the largest cane sugar production in Louisiana for 10 years and is nearly double last year's production of 169,127 tons.

oothic last year sprofutction or voi, 127 tons.
The production of sirup totaled 6,454,388
gals. compared with 4,639,858 gals, last year.
The molasses production amounted to
25,423,311 gals, compared with 16,858,867
gals. last year. These figures were determined by the department from reports received from the sugar and sirup factories in

The sugar production as stated above was found to be considerably greater than was estimated last December from reports made by the factories soon after the beginning of the season.

Among the various main factors responsible for this increase were A larger average yield of cane per acre than was first estimated; a larger yield of sugar per ten of cane, amounting to 13.2 lbs., than given in the December-estimate; a smaller percentage of the total cane area reserved for seed because of the quality and heavy yield of subble cane; and a slightly greater acreage than was first estimated. Moreover, the weather was unusually tavorable for cane

during the latter part of the growing season.

The accompanying table shows in detail the production of case sugar, sirup, and molasses in Louisiana for the last four seasons.

Production of Cane Sugar, Sirup, and Molasses in Louisiana, 1918-1921

			2911		
Item.	Year of cane harvest.				
	- 1918	1919	1920	1921	
CANE SUGAR.					
Factories making sugarnumber	134	121	122	224, 431	
Sugar madetons	280,900	121,000	169,127	324, 431	
Cane used for sugar <sup>1</sup> tons	4,170,000	1,883,000	2,492,524	180,780 135.2 226,366	
Average sugar per ton of cane	135. 0 231. 200	129.0	136.1	135.2	
Area of came used for sugar acres.  Average came per acre	18.0	179,900	182,843 13. 6	18.5	
CANE MOLASSES.	10.0	10.5	10.0	19.0	
Molasses made , gals	20,049,000	12,991,000	16,856,897	25, 428, 341	
Average, molasses per ten of canegals	4.8	6.9	1.8	6.1	
CANE STRUP.					
Factories making sirup (22 sugar parishes)number	76	46	52	. 52	
Sirup madet					
22 sugar parishesgals	10,793,000	2,510,000	2,111,928	2,422,388	
Entire Stategals	(1)	3,672,000	4,639,885	6, 454, 388	
Cane used for skrup:					
22 sugar parithestons	494,000	124,000	101,845	115, 125	
Entire State.\t tons	(2)	196,000	224,205	307,125	
Tons of 2,000 pounds.	2	Not reported	L.		

#### Truck Crop Conditions in Virginia and North Carolina. (Frepared as of April 29.)

Field reports of the Bureau of Markets and Crop Estimates concerning truck crops in Viginia and North Carolina afford the following information:

lowing information caronia motor the zolowing information. Norfolk section of Vir-Guia Guia acreage is 10% over last grant and the company of the company of the property of the company of the company of the property of the company of the company of the property of the company of the company of the property of the company of the company of the motor of the company of the compa

of chbage compared with 600 last Max. The crop is in good condition and will more after May 15. Dnions.—There are 800 acres of onions of the Eastern Shore of Virginia, about the ame acreage as last year's. The crop is in good condition and will move June 25 to

July 15.

Potatoes.—North Carolina potatoes at Aurora and in the Elizabeth City section are mostly late. Losses on early plantings were heavy because of rot and a large percentage was replanted. The acreage is only slightly larger than last year's with a 60 to 65% stand, much below the usual. There will be a light movement by May 25 but

most of the crop will move after June 10.

In Virginia the Norfolk crop is in fine condition. The acreage is about equal to last year's with an 85% stand. Movement with begin June 1 and will be heavy after the 16th. On the Eastern Shore the acreage is 72,000 acres, compared with 66,500 acres in 1921. South of Cape Charles the condition is excellent with a stand of 85%. Movement will begin June 1 and will be heavy after the 10th. North of Cape Charles potatoes are still coming up. No material damage to

potatoes has been caused by frost at Noriolk or on the Eastern Shore.

or on the Eastern Shore.

Strawberry acreage in
the Norfolk section of Virginia is one-third
greater than last year's. Plants have been
blooming heavily. A good yield is expected
with a total of about 250 cars.

On the Virginia Eastern Shore the acreage is 3500 acres, an increase from 1,500 acres iy 1921. Recent frosts have damaged the rop about 15%. The movement began

#### Early Cantaloupes From Mexico.

Probably 1,000 to 1,200 acres have been planted to cantaloupes this season along the west coast of Mexico, soveral hundred miles south of the border. The yield reacre is expected to be less than in the Imperial Valley because of uniavorable weather conditions and the inexperience of the growers.

And growers.

Silpments to the United States from this district enter at Nogales, Ariz. A few lots books appeared in western markets the first part of April and sold at \$10-\$15 per lug. The sizes were small and the quality ordinary. A carlead arrived at Los Angeles on Apr. 21, and when repacked in standard pony crates met ready sale at \$6 per crate. The first car reached New York Apr. 24.

The first car reached New York Apr. 24. The melons were of the white-meated type, small in size, and unwrapped, and were packed in pony and standard crates, generally 54 to the crate. The ponys sold meetly at \$8 and the standards at \$10, but offerings did not move briskly.

Because of the comparatively light yields, melous from this district probably will not compete with those from the Imperial Valley to any great extent, except that having arrived early, they have taken the first "edge" off the market.

# Excerpt from Weather, Crops, and Markets, May 6, 1922:

#### Early Cantaloupes From Mexico.

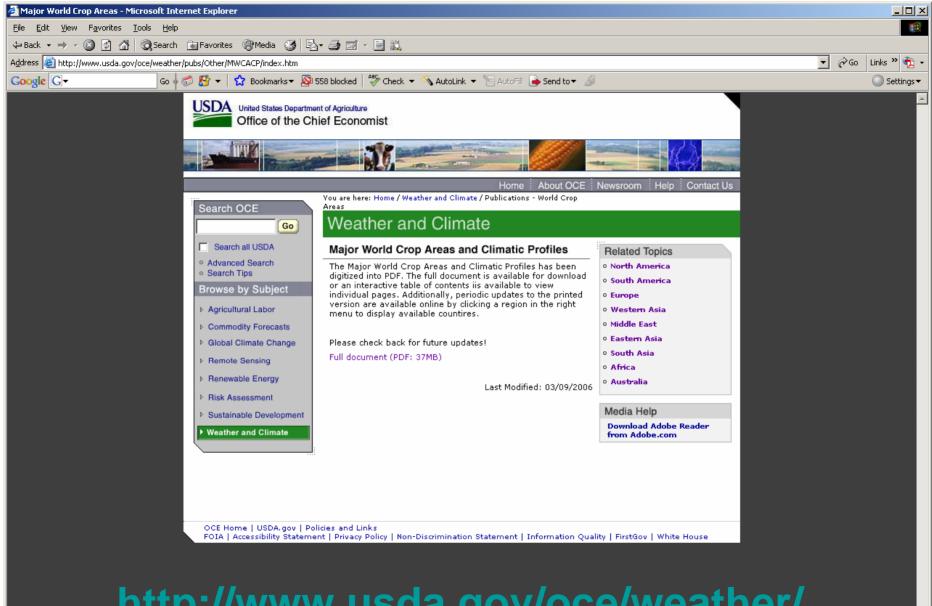
Probably 1,000 to 1,200 acres have been planted to cantaloupes this season along the west coast of Mexico, several hundred miles south of the border. The yield per acre is expected to be less than in the Imperial Valley because of unfavorable weather conditions and the inexperience of the growers

the growers.
Shipments

Shipments to the United States from this district enter at Nogales, Ariz. A few lots of Mexican cantaloupes packed in lug boxes appeared in western markets the first part of April and sold at \$10-\$15 per lug. The sizes were small and the quality ordinary. A carload arrived at Los Angeles on Apr. 21, and when repacked in standard pony crates met ready sale at \$6 per crate.

The first car reached New York Apr. 24. The inclons were of the white-meated type, small in size, and unwrapped, and were packed in pony and standard crates, generally 54 to the crate. The ponys sold mostly at \$8 and the standards at \$10, but offerings did not move briskly.

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# http://www.usda.gov/oce/weather/pubs/Other/MWCACP/index.htm





# Mexican Summer Crop Calendars, By Month

January

#### Mexico

Sugarcane: Harvesting

Citrus & Coffee: Harvesting

July

#### Mexico

Corn & Sorghum:

Vegetative to Reproductive\*

February

#### Mexico

Sugarcane: Harvesting Citrus & Coffee: Harvesting August

Mexico

Corn & Sorghum: Fillingh

March

#### Mexico

Sugarcane: Harvesting Coffee & Citrus: Harvesting September

Mexico.

Corn & Sorghum: Maturing

**April** 

#### Mexico

Citrus & Sugarcane: Harvesting

October

Mexico

Mexico.

Corn & Sorghum:

Corn & Sorghum: Harvesting

May

#### Mexico

Sorghum & Corn: Planting

Citrus & Sugarcane: Planting

November

Harvest Sugarcane: Harvest Citrus & Coffee:

> Harvest Mexico

June

#### Mexico

Sorghum & Corn: Planting Citrus & Sugarcane: Harvesting December

Corn & Sorghum: Harvesting Sugarcane: Harvesting Citrus & Coffee: Harvesting

\* Moisture / Temperature Sensitive Stage of Development

Mexican Winter Crop Calendars, By Month Mexico July January Wheat: Vegetative Vegetables: Harvesting Mexico February August Wheat: Heading \* Vegetables: Harvesting Mexico March September Wheat: Filling Mexico Mexico

April Mexico

Wheat & vegetables:

Harvesting

October

Wheat: Planting

May

**Mexico** Wheat: Harvesting Vegetables: Harvesting

November

**Mexico** Wheat: Planting

June

Wheat: Harvesting

December

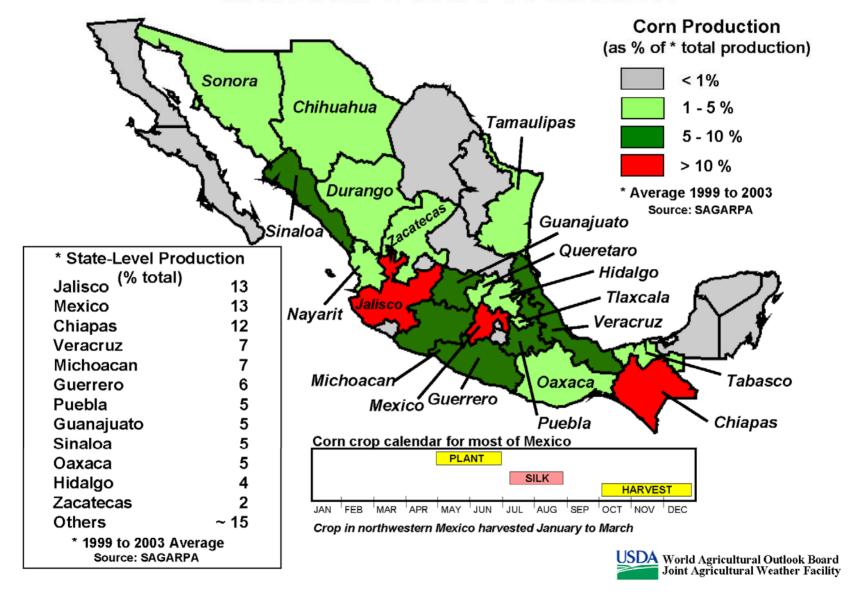
Mexico

Wheat: Planting Vegetables: Harvesting

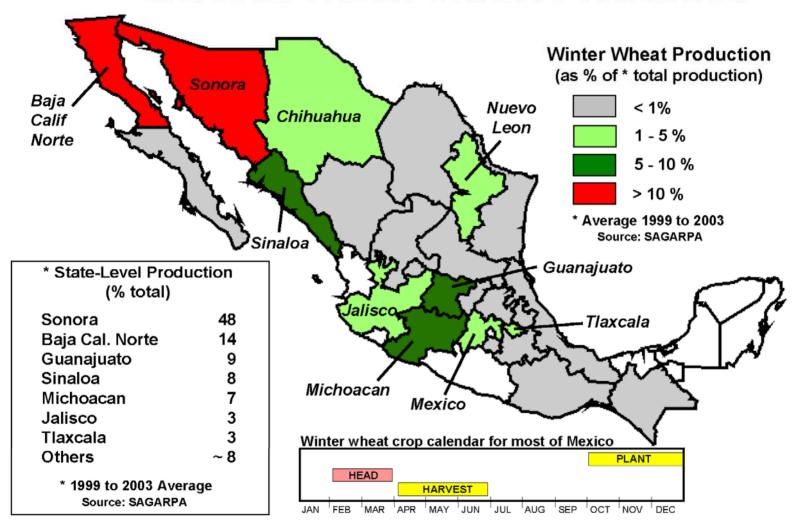
Mexico

<sup>\*</sup> Moisture / Temperature Sensitive Stage of Development

## Producción del Maíz Grano de México Mexican Corn Production

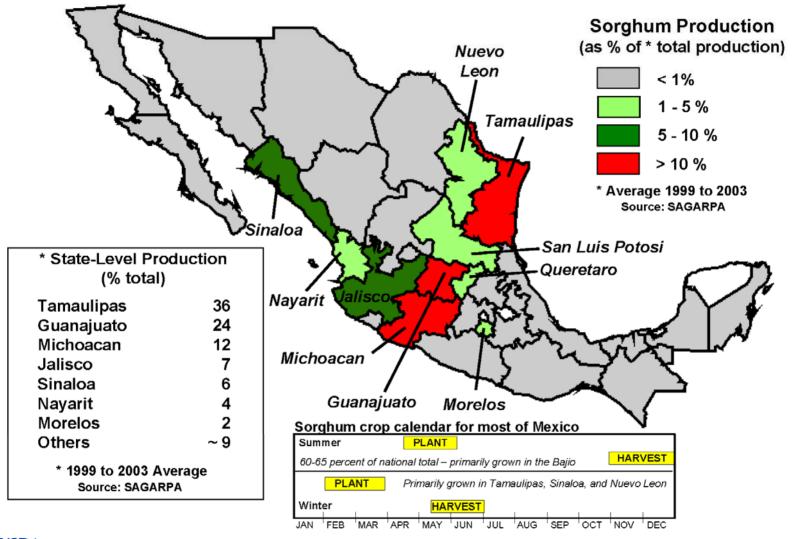


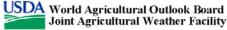
## Producción del Trigo (Otoño/Invierno) de México Mexican Winter Wheat Production





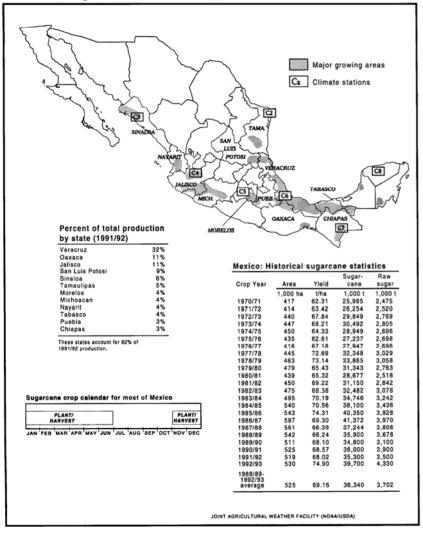
# Producción del Sorgo Grano de México Mexican Sorghum Production



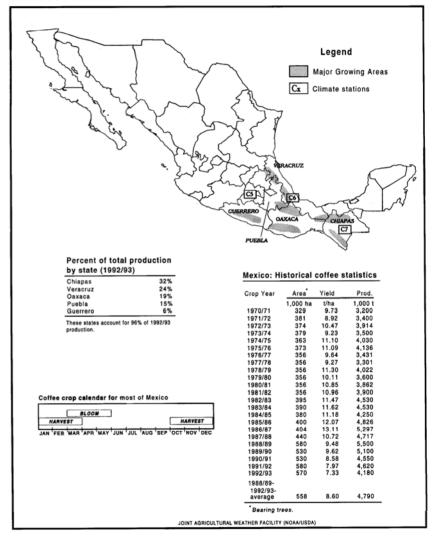


### Producción de la Caña de Azúcar y del Café de México

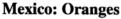
#### **Mexico: Sugarcane**

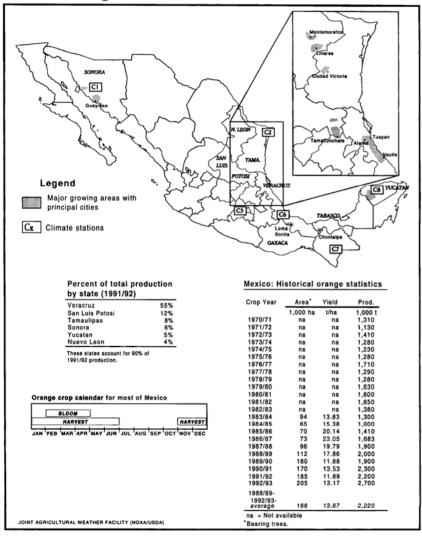


#### **Mexico: Coffee**

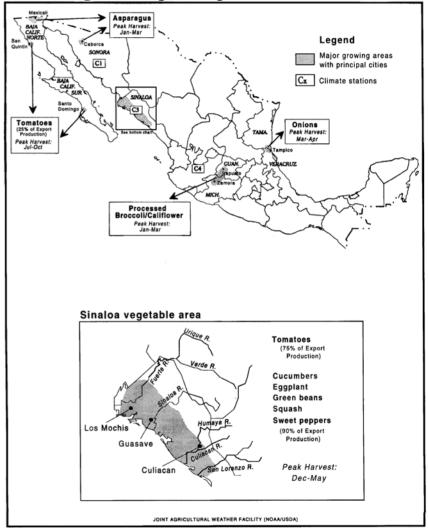


### Producción de las Naranjas y Verduras de México

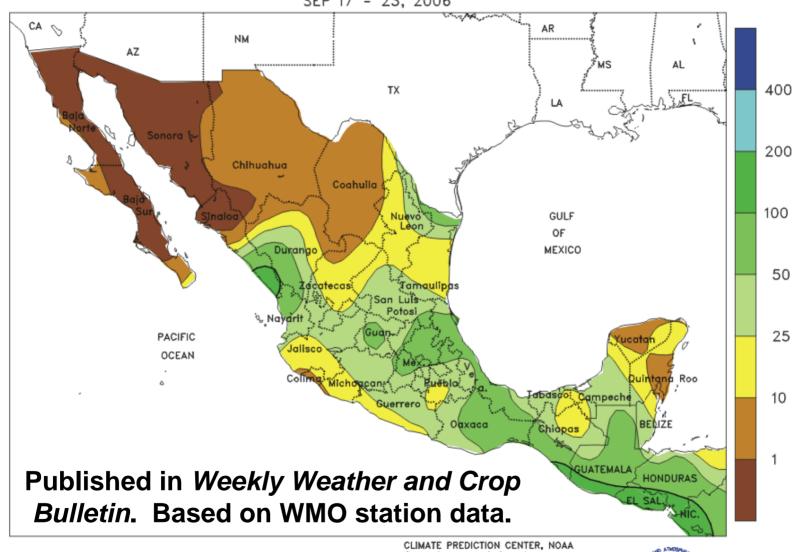




Mexico: Vegetable crops for export



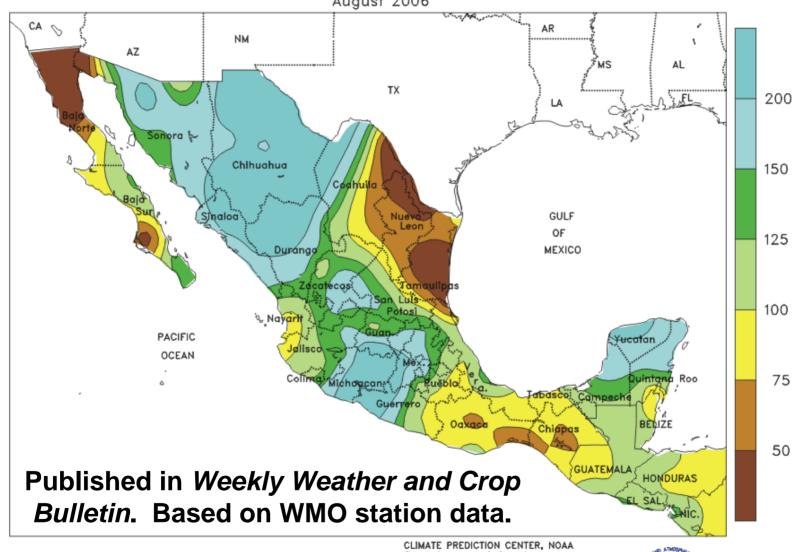
MEXICO Total Precipitation (mm) SEP 17 - 23, 2006



CLIMATE PREDICTION CENTER, NOAA Computer generated contours Based on preliminary data



MEXICO Percent of Normal Precipitation August 2006

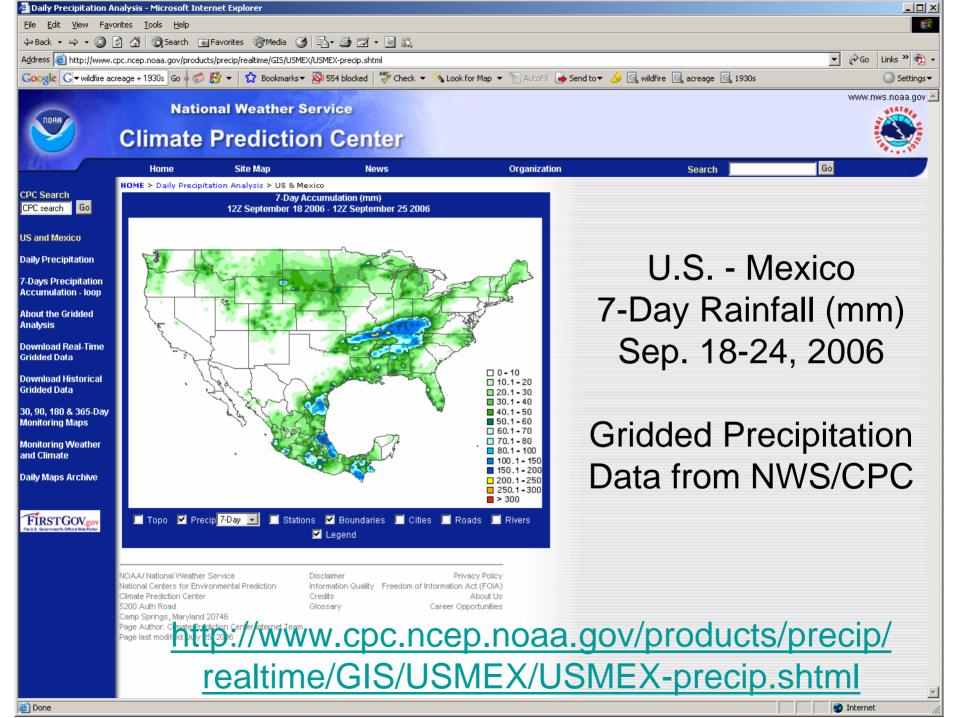


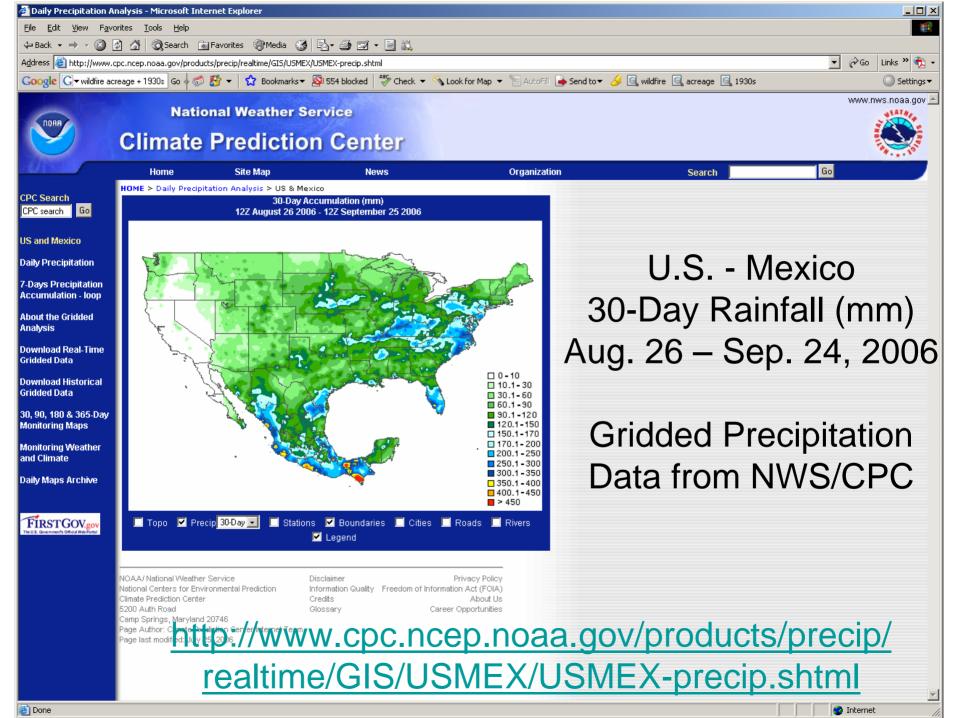
CLIMATE PREDICTION CENTER, NOAA Computer generated contours Based on preliminary data

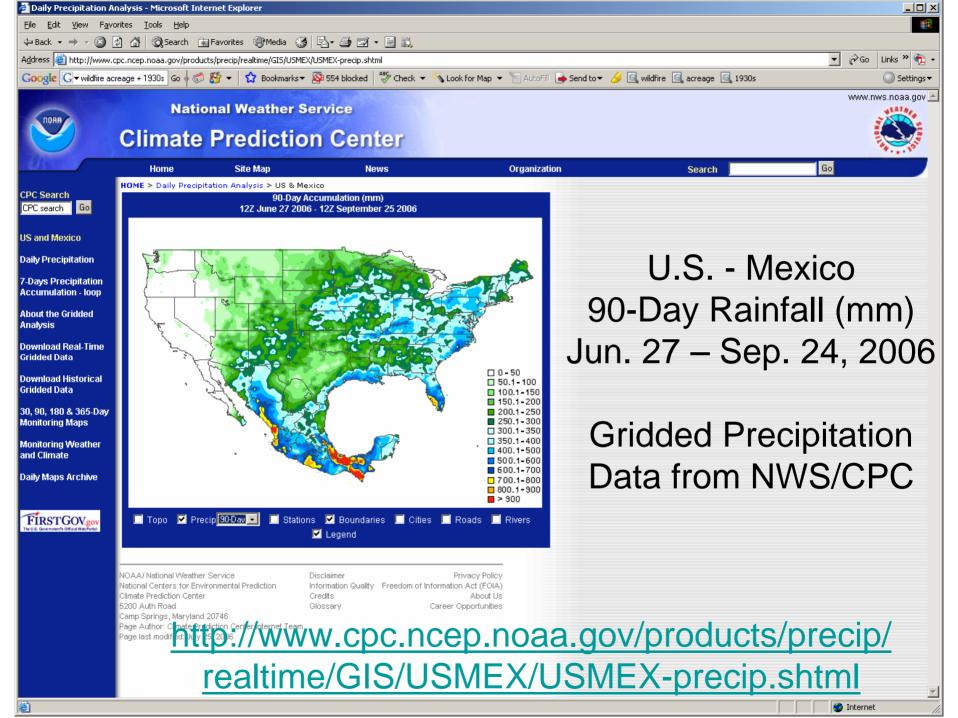


# **U.S. – Mexico Gridded Precipitation Analysis**

- The Climate Prediction Center (CPC) daily (1200 1200 UTC) rain gauge analysis contains information from over 8,000 stations across the U.S. and Mexico each day in near real-time (within 12 hours). The data base includes multiple sources of rain gauge data over the **U.S.**: "first order" World Meteorological Organization (WMO) Global Telecommunications System (GTS) sites; SHEF (Standard Hydrologic Exchange Format)-encoded precipitation reports from River Forecast Centers; the Hydrometeorological Automated Data System (HADS) dátaset; and the SNOTEL [SNOwpack ŤELemètry] dataset. Mexico's precipitation data is provided by the Mexican Weather Service (SMN) through a continuing long-term collaboration.
- **Resolution:** 0.25 degree x 0.25 degree



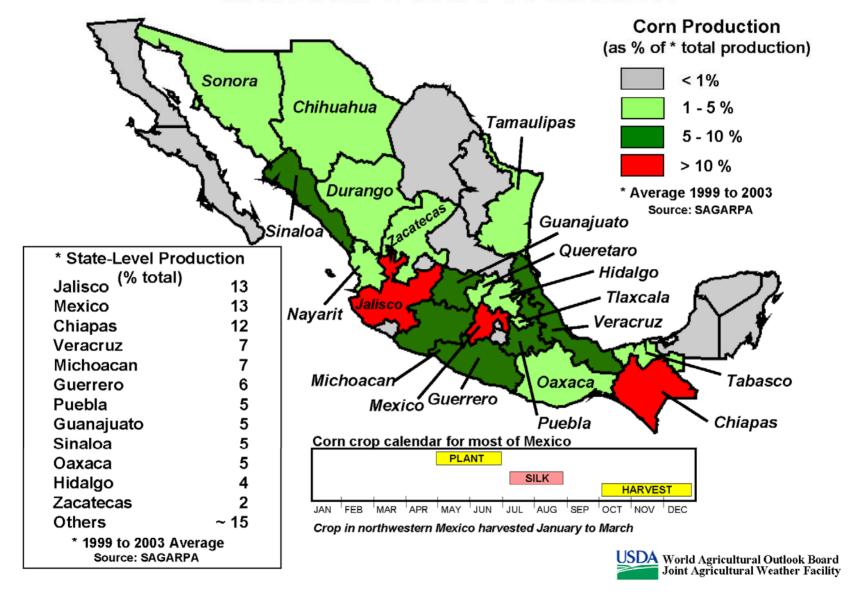




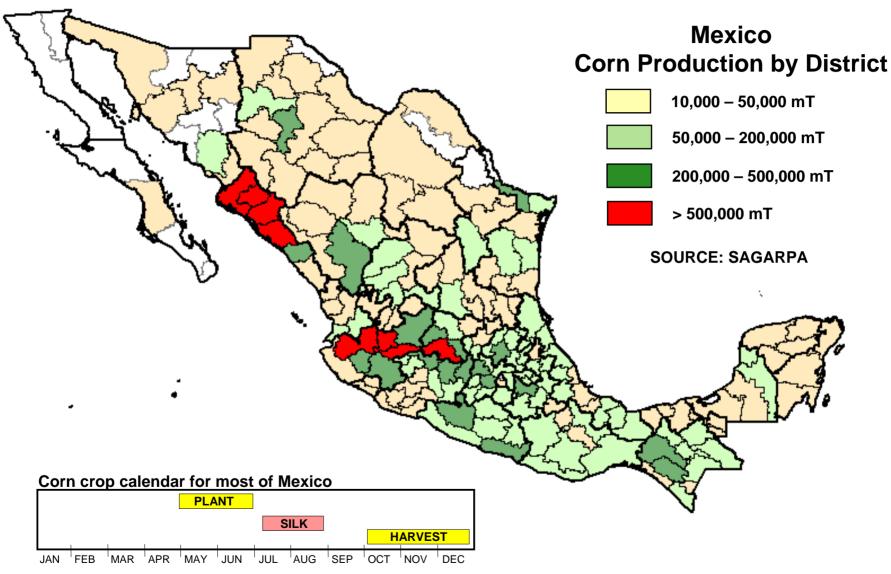
# Advantages of an Enhanced Rainfall Dataset and GIS Technology

- We have a high-quality, dense Mexican dataset due to collaboration between the U.S. Department of Agriculture and the National Weather Service (NWS), and between the NWS and SMN.
- The use of a GIS allows us to take advantage of the Mexican dataset (example for corn shown on next nine PowerPoint slides).

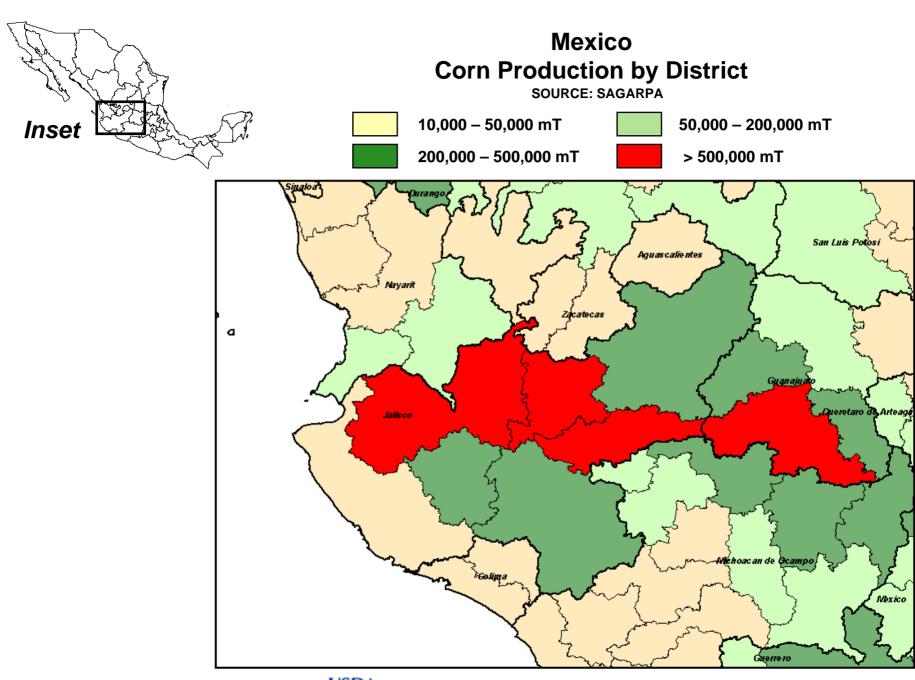
## Producción del Maíz Grano de México Mexican Corn Production

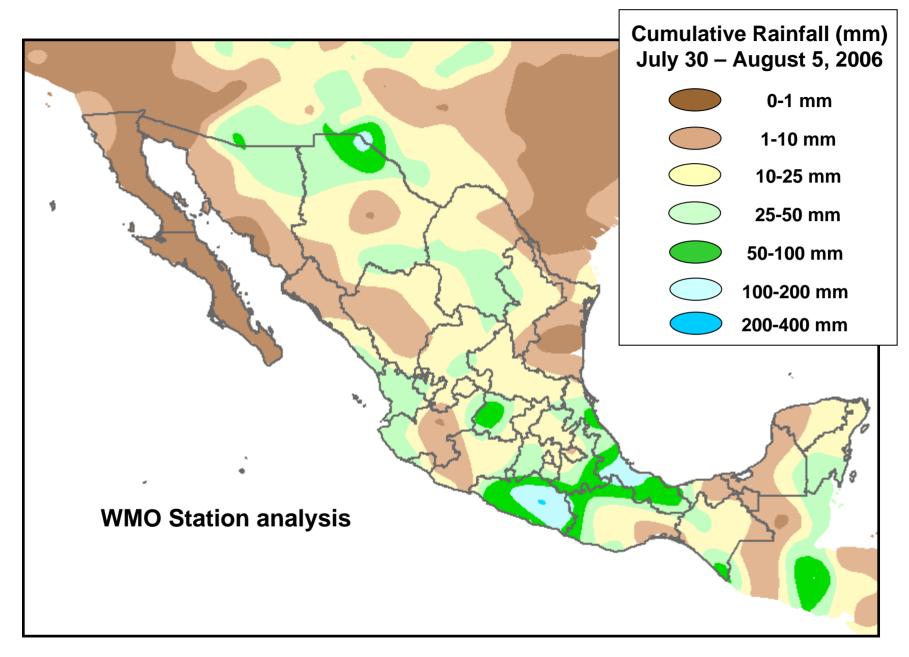


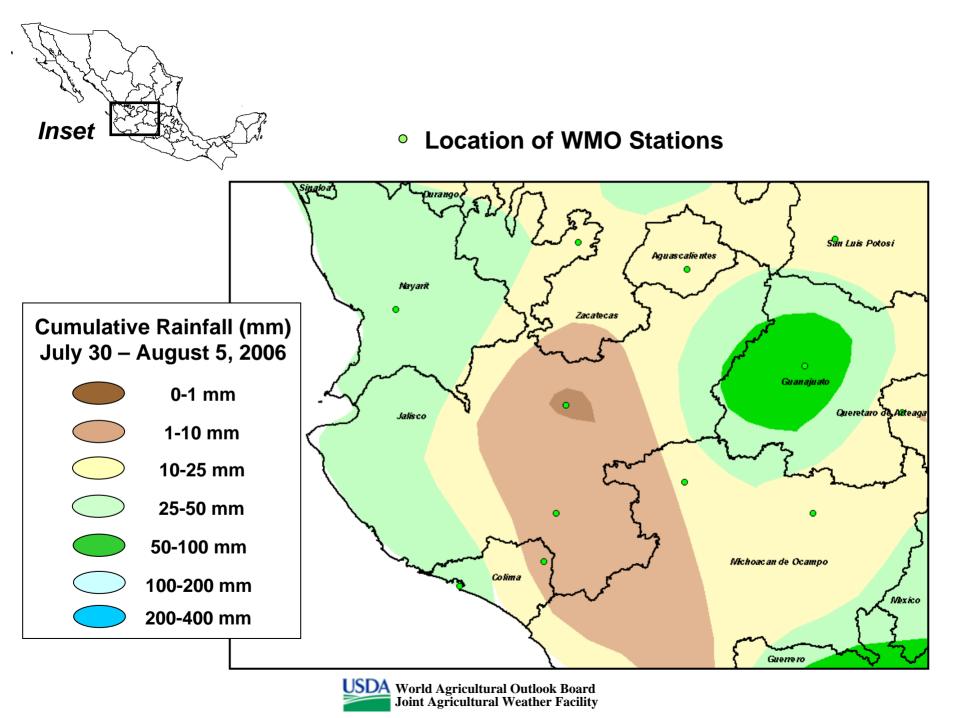
### **Mexican Corn Production**

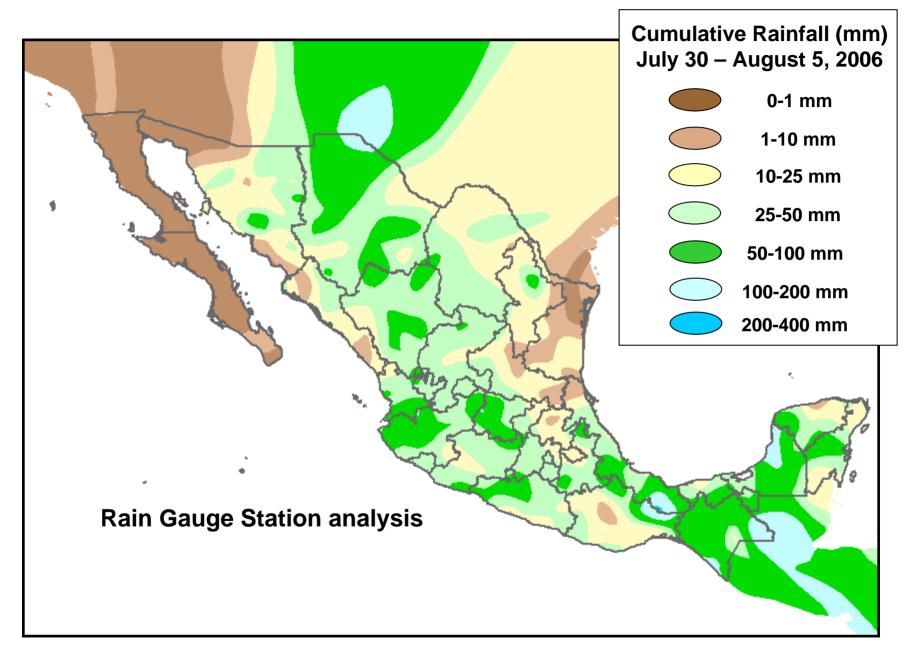


Crop in northwestern Mexico harvested January to March



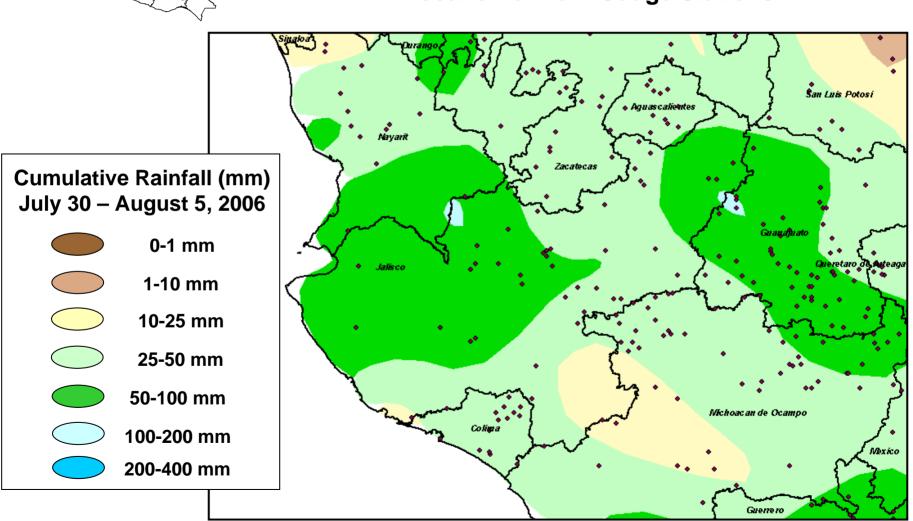


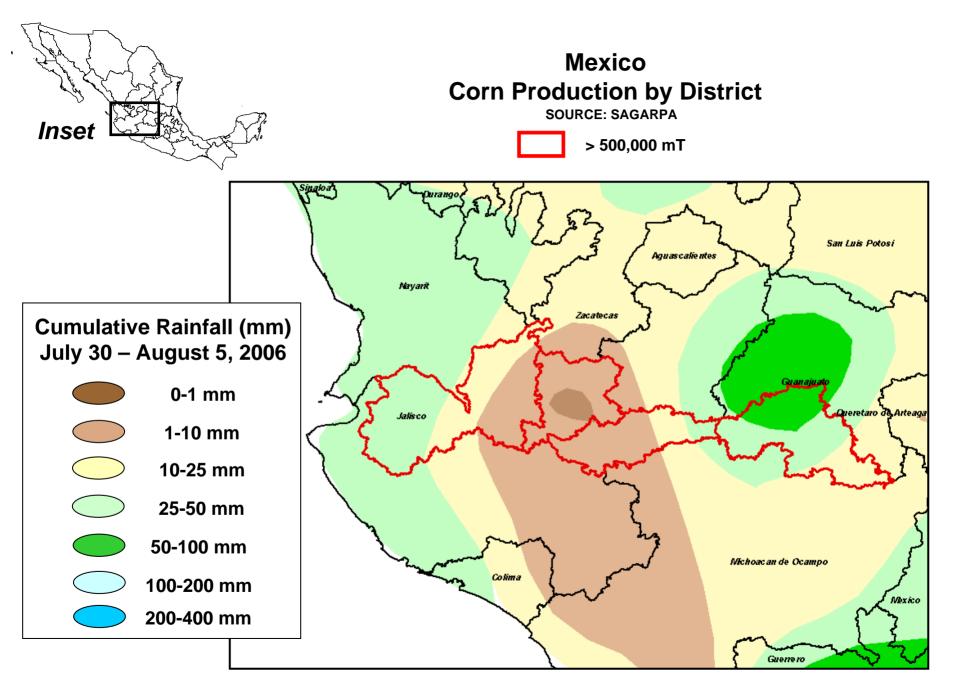






#### Location of Rain Gauge Stations



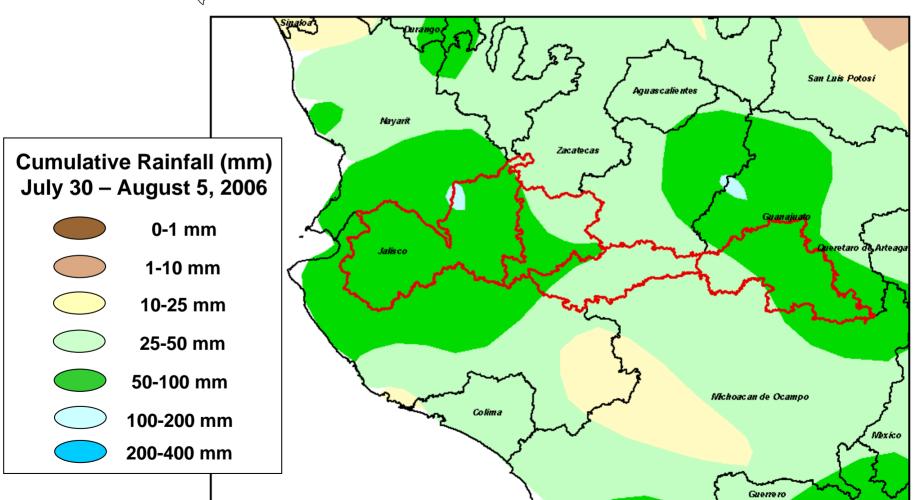




# Mexico Corn Production by District

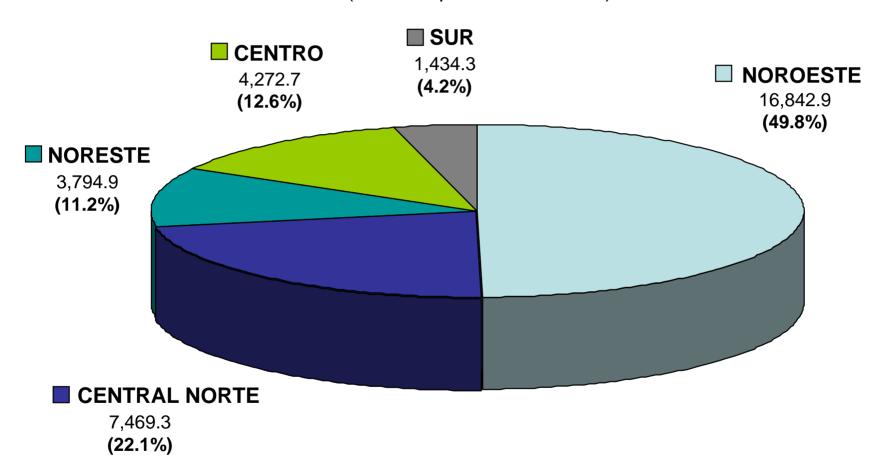
**SOURCE: SAGARPA** 

> 500,000 mT

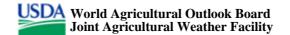


# Volumen Util Para Riego (Millónes de Metros Cúbicos) Participación Nacional

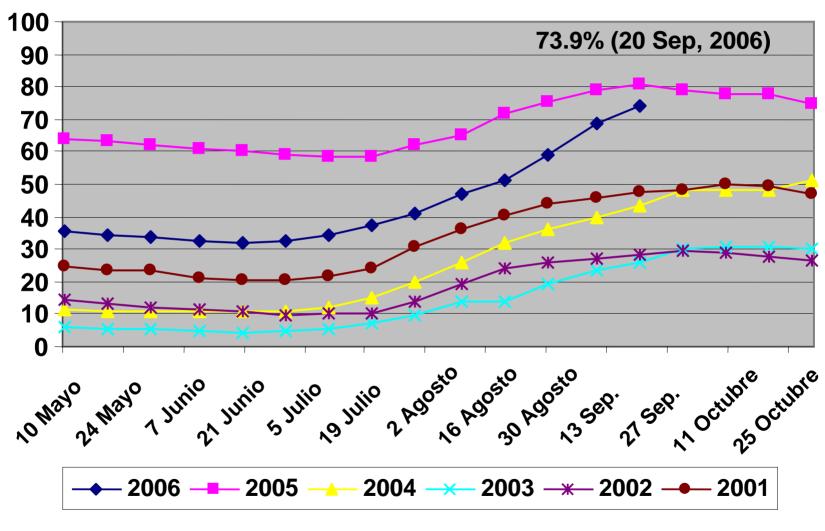
(20 de Septiembre de 2006)



Origen: Servicio de Información Estadística Agroalimentario y Pesquera (SIAP)



# Volumen del Agua en México del Noroeste Northwest Mexico Reservoir Levels



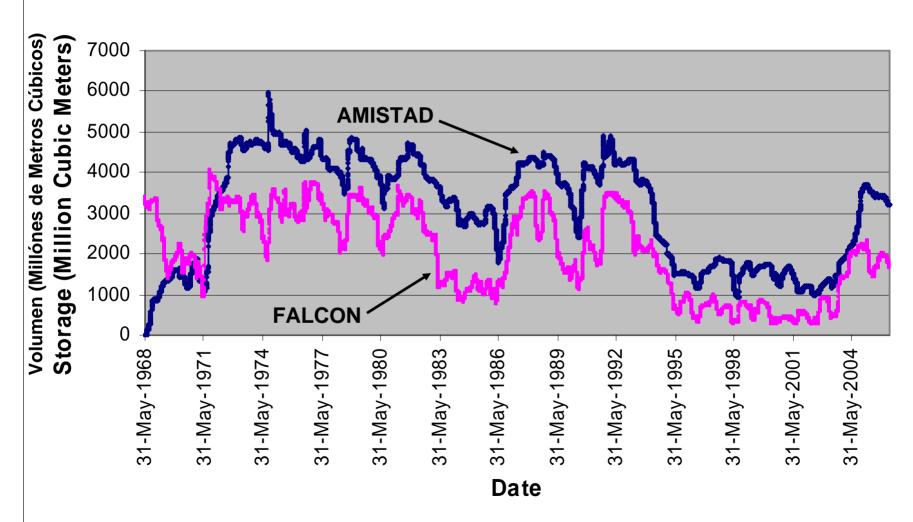
Por Ciento de Capacidad

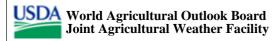
Percent Capacity (%)

**Source: Mexico's National Water Commission (SIAP)** 



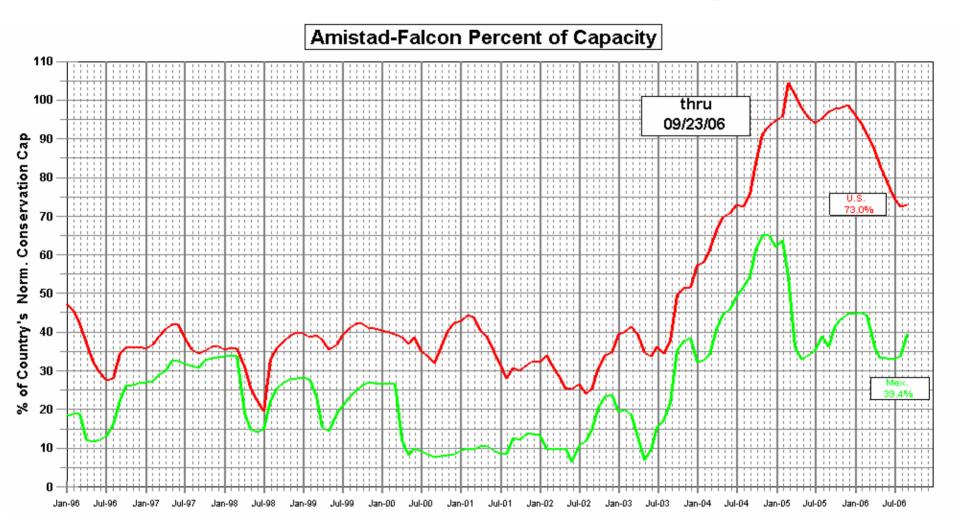
# International Amistad and Falcon Reservoirs Storage, 1968-2006

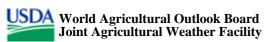




Source: International Boundary & Water Commission (IBWC)

# Amistad-Falcon: Por Ciento de Capacidad





**Source: International Boundary** & Water Commission (IBWC)

The End

Questions?

E-Mail: brippey@ oce.usda.gov El Fin

¿Preguntas?

E-Mail: brippey@ oce.usda.gov