

Corn: An Introduction and Market Analysis

ARE 311

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Introduction

- ❖ **U.S. #1 for corn production**
 - **2018-19 year U.S. grew more than 14.42 billion bushels (366 mmt)**
- ❖ **Corn is primary feed grain in U.S. - over 95% of total feed grain production**
- ❖ **Most common is #2 yellow corn**
- ❖ **Three main uses for corn in the market:**
 - 1) **Feed**
 - 2) **Ethanol/Fuel**
 - 3) **Food**
- ❖ **Fun fact: a typical grocery store carries 4,000 items that list corn ingredients on the label**

Production Process

❖ Planting season (Spring)

- Start with burndown (spray to kill weeds and grasses in the field)
- Fertilizer application (some people use granular, some use organic i.e. chicken manure)
- Tillage (3 main types: No-till, strip-till, and conventional tillage)
- Planting (Row crop: 20-38 inch rows)
- Pre-emerge spray (spray after plant before the plant emerges to kill existing weeds and suppress weed seed from germinating)

❖ Growing season (Summer)

- Post-emerge herbicide application (spray a couple weeks after sprouting to kill weeds and suppress seeds until corn canopy shades out)
- Fertilizer application (either top dress with granular or side dress with liquid)
- Monitor for insects needing to be sprayed (Stink bugs, corn ear worms)

❖ Harvest season (Fall)

- Harvested with a corn head on a combine
- Transferred to a truck to either go to storage or to the selling point

Marketing

❖ Basis Contract

- Most crops are sold under a basis contract
- Co-ops or small grain elevators will oftentimes have a “under basis”
- This is because they have to haul the grain afterwards to a feed mill or larger buying point
- Feed mills or other larger buying points often have a “over basis”
- These places need the product more so there is more incentive to bring it to them

❖ Booking

- Locking in a price before you are ready to deliver the product
- Used to make sure you get a price if you are scared the market will turn

❖ Hedging

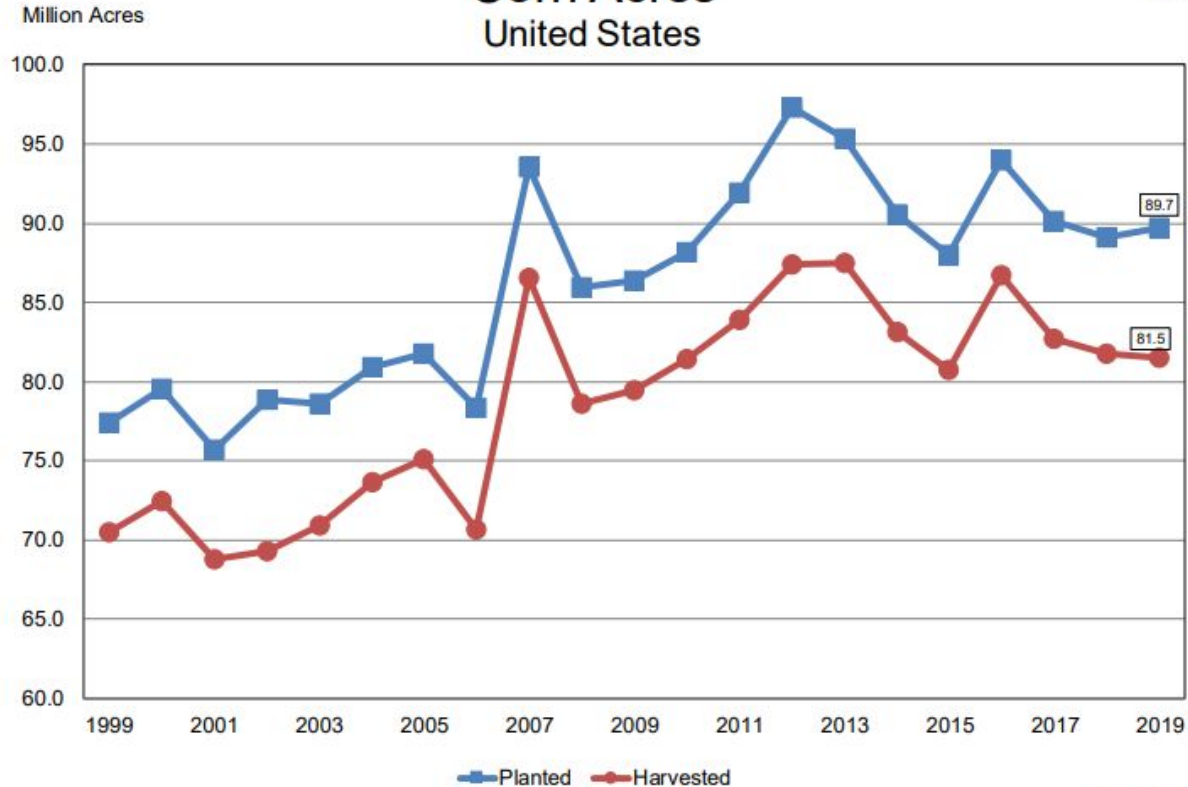
- Buying or selling your crop on paper after you have delivered it and sold it to give a better opportunity to make money

❖ Quality deductions

U.S. Acreage Statistics

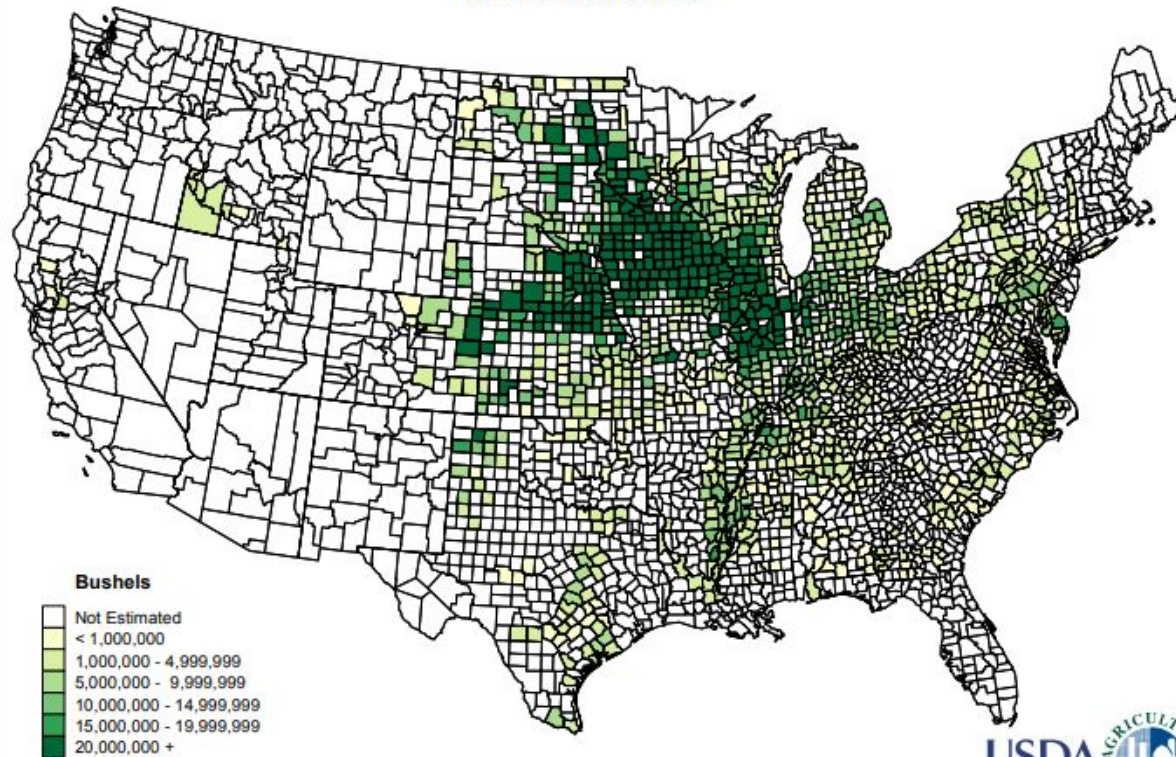


Corn Acres United States



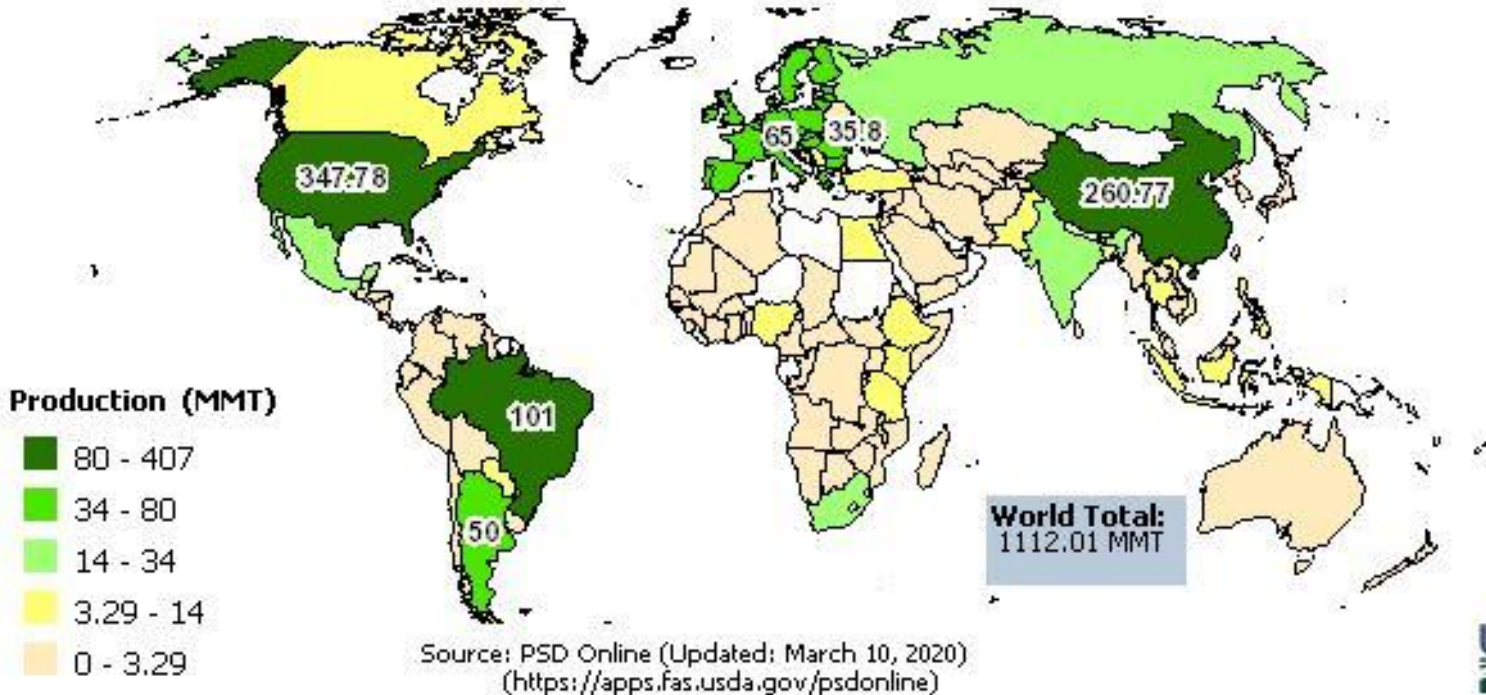
U.S. Corn Production

Corn for Grain 2019
Production by County
for Selected States



Global Corn Production

2019/2020 Corn Production



- #1 U.S.
- #2 China
- #3 Brazil
- #4 EU
- #5 Argentina

mmt = million metric tons

Export Analysis

- ❖ U.S. exports 10-20% of annual production
- ❖ Top countries
 - 1) Mexico
 - 2) Japan
 - 3) Colombia
- ❖ Exports of U.S. corn and corn products generated \$74.7 billion in 2014
- ❖ Fun Fact: corn plays a critical role in the world's economy



Corn Futures Market

❖ Breakdown:

- “Contracts” are 5,000 bushels of #2 yellow corn symbolized as ZC
- #1 yellow corn = \$1.50 premium/bushel and #3 yellow corn = \$1.50 discount/bushel
- Traded at Chicago Board of Trade (CBOT), Euronext, and Tokyo Grain Exchange (TGE)
- Price fluctuates based upon supply, demand, and speculation
- Traded on “ticks”, every $\frac{1}{4}$ tick = \$12.50

❖ Who trades these contracts?

- Individuals, grain elevators, farmers, investors, and commercial firms

❖ Fun Fact: on average, 350,000 contracts traded per day

Current Events

- ❖ Coronavirus hits already frail U.S. farm economy
 - <https://www.wsj.com/articles/coronavirus-hits-already-frail-u-s-farm-economy-11584783001?mod=searchresults&page=1&pos=14>
- ❖ A spur to the biotech century ahead
 - <https://www.wsj.com/articles/a-spur-to-the-biotech-century-ahead-11585238908?mod=searchresults&page=1&pos=1>

Sources

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