

Introduction to Agriculture Part 2



**United States Department of Agriculture
National Agricultural Statistics Service**

A Presentation by the NOD-Training Group



Cattle and Calves



Cattle and Calves: Terms

- Cow: female bovine that has calved
 - Beef cows: produce a calf (typically born in the spring) that will be used for meat
 - Milk cows: produce milk
- Calf: a baby of either gender
 - Calving: giving birth
- Heifer: female bovine that has not calved
 - Beef or milk cow replacement OR slaughter
- Gestation period: approx. 280 days
- Age at first calving: typically around 24 months

Cattle and Calves: More Terms

- Bull: intact male
- Steer: castrated male
- Cattle on feed: cattle being fed a finishing ration, intended to go directly to slaughter
 - Typically steers and “other” heifers
 - Finished/slaughter weight and age: varies by breed
- Feeder calves: weaned calves to be placed in feedlot as cattle on feed
- Yearlings: weaned, fed over the winter, and placed on grass prior to finishing in a feedlot

Cattle and Calves: Data

- All Cattle and Calves: 87.7 million head
 - TX, NE, KS, CA, OK
 - Cyclical inventory, typically peaks around June/July
 - Most calves born in the spring (72%)
- Beef cows: 29 million (TX, NE, MO, OK, SD)
 - Beef cow replacement heifers: 5.5 million
- Milk cows: 9.2 million (CA, WI, NY, ID, PA)
 - Each produces over 21,000 lbs of milk/per yr
 - Milk cow replacement heifers: 4.5 million
- Cattle on feed: 12.7 million (TX, NE, KS, IA, CO)

Hogs and Pigs



Hogs and Pigs

- 65.9 million hogs and pigs
 - IA (30%), NC, MN, IL, IN
- Consolidated/vertically integrated industry
 - Often with contractual relationships
- 49,250 operations with 1-99 hogs
 - Account for only 0.9% of the total hogs
- 135 operations with over 50,000 hogs
 - But that amounts to 58.1% of the total inventory

Hogs and Pigs, cont.

- Boar: intact male
 - Barrow: castrated male
- Sow: female that has farrowed (given birth)
 - Gilt: female that has not farrowed
- Gestation period is 3 months, 3 weeks, 3 days
 - Resulting in around 2.xx litters per sow/yr
- Average litter size is 10.13
- Typical weaning weight is around 20 pounds at 20 days old
- Hogs gain, on average, 1.0 – 1.8 lbs per day
- And are slaughtered at about 240-260 pounds

Sheep and Goats



Sheep

- Ewe: female sheep
 - Gestation: typically around 5 months
 - Lambing: giving birth, twins common
 - Usually late winter
- Lamb: baby of either gender
 - Lambs weaned around 50-90 days, placed on feed and slaughtered at around 100-120 pounds
- Ram or buck: intact male sheep
 - Wether: castrated male sheep
- Wool production: 7-12 lbs per sheep (3-6 lbs for lamb), per shearing
- Different production practices for eastern farm flocks and western range herds

Goats

- Angora (mohair production), milk, meat/other
- Doe (nanny): female
 - Gestation: typically 5 months
 - Kidding: giving birth, twins common
- Kid: young goat
- Buck (billy): male
- Mohair: around 1.5-10 lbs per goat per clip
- Milk: 660-1800 lbs of milk (305 day lactation)

Sheep and Goats: Data

- Sheep: 5.21m total across the US
 - TX, CA, CO, WY, UT
- Goats: 2.76m total
 - Over 80% of these are meat/other goats
 - Inventories: TX (36%), TN, CA, OK, MO
 - Milk: WI, CA, IA, TX, PA
 - Angora: TX (over ½ of total), AZ, NM
 - 1/3 of the goats in the US live in TX

Poultry



Poultry: Overview

- Much like hogs and pigs, a very centralized and vertically integrated sector
 - Production, processing, marketing all in one
 - BUT substantial number of small producers
 - Account for very little of total inventory
- **Broilers:** 50.1b pounds = \$24.76b value
 - GA, AR, AL, NC, MS = nearly 60% of production
- **Eggs:** 92.9 billion produced = \$7.823b value
 - IA (16%), OH, PA, IN, CA
- **Turkeys:** 253.5m, 29.7 lb turkeys = \$5.441b value
 - NC, MN, AR, IN, VA

Other Livestock



Other Livestock

- **Equine:** (horses, donkeys, etc) US data only collected on the Census
 - Some state specific surveys
 - Can be “dicey” operating arrangements
 - Hobbyists may not consider themselves a farm, boarding/training operations, syndicates, etc
 - Fairly significant contribution to rural/ag economy
- **Bee and Honey**
 - 2.62m colonies (hives) from which 147m lbs of honey harvested
 - North Dakota (!) number 1 producer
 - Great demand for bees as pollinators
- **Aquaculture**
 - Focused on “farm raised” freshwater fish varieties
 - Catfish, trout, etc
 - 83k acres of catfish ponds (MS with nearly 60%)
 - Producing about 340m pounds per year

Farm to “Table” Rates

- Chickens: 7 to 9 weeks
- Hogs: 6 months
- Cattle: 18-24 months
- Vegetables: 3 months
- Corn/Soybeans: around 5 months
- Fruit trees: 3-7 years before bearing
- Maple: 20 years plus

Farm Labor

- There were 871,000 hired workers on the nation's farms and ranches during the week of October 6-12, 2013
- 35% of farms have less than 7 hired workers
 - While 31% had 51 or more hired workers
- Average wage rate per hour was \$11.96.
 - Wages comparable geographically AND by type of work (Crop or Livestock)

Fertilizer and Chemicals



Fertilizer and Chemicals

- Varies substantially from crop to crop
 - Census collects general acreage information
 - Chemical Usage program targets specific crops/rates
- **Fertilizer:** manure or chemical fertilizers
 - Nitrogen most common for field/vegetable crops
- **Chemicals:** pesticides (herbicide, insecticide, fungicide), other chemicals
 - Fruit: majority applied is fungicide or insecticide
 - Corn: herbicide (98% of acres), fung/insect (<15%)
 - Vegetables: much more of a mix

Organic Agriculture

- 9,140 certified organic operations in the US
 - 45% with \$100k in sales or more
- Covering 3.6m acres
 - Wisconsin: 110K acres; New York: 97K acres; California: 91K acres
- Generating \$3.5b in sales
 - Across a diverse array of crops/livestock
 - Corn: \$101.5m; Dry Hay: \$69.5m; Winter Wheat: \$54m

In Summary

- Whirlwind tour of US agriculture production
 - Goal was to provide you with a general framework/perspective to work with
 - AND build upon over the course of your career
- Vitally important to the US economy
 - Only a small portion of population farm/ranch
 - BUT vast array of “support” industries
 - Processing, transportation, inputs, etc.
- And remember, YOU and the work you do, are *the* foundation of all the NASS information