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: 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
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- 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