

# USDA GOAT NAHMS - DAIRY

DR. KELLY STILL BROOKS DVM MPH DCVPM DABVP-FOOD ANIMAL

ASST. PROF DAIRY & LIVESTOCK PRODUCTION MED, CSU CVM&BS

[KMSTILL@COLOSTATE.EDU](mailto:KMSTILL@COLOSTATE.EDU)

24 JULY 2019

# OBJECTIVES

- WHY DAIRY GOATS?
- MEET THE MAKERS
  - WHERE, WHAT, AND WHO?
- INDUSTRY NORMS
  - HOW OF HERDS AND MANAGEMENT
- KEY SOURCES
  - ASSOCIATION AND BREED DATA
  - DHIA
  - USDA-AMS
  - 2009 GOAT NAHMS
  - ....PERSONAL EXPERIENCE

WHY?



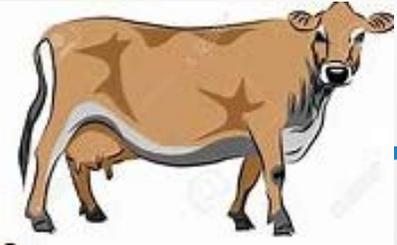
WHY?

**\$90+ MILLION IN SALES**

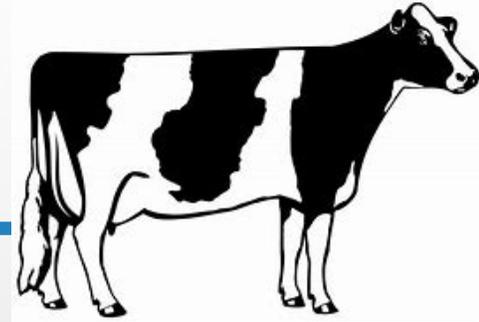


**Bovine Milk Protein Allergy Solution  
Better Buffered – Higher Protein, NPN, and Phosphate  
Smaller Fat Globules, More Short-Med Chain FA, Softer Curd**

# MILK FAT %



**4.9%**



**3.7%**

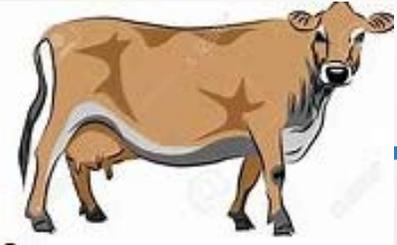


**6.2%**

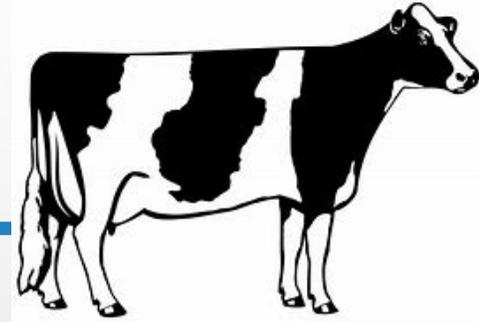


**3.3%**

# MILK PROTEIN %



**3.8%**



**3.2%**

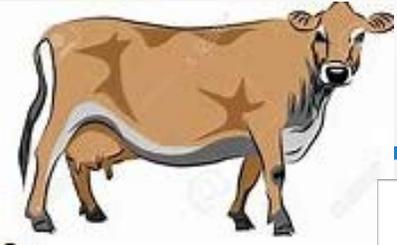


**4.4%**



**2.9%**

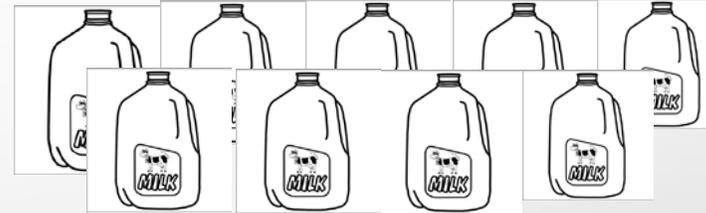
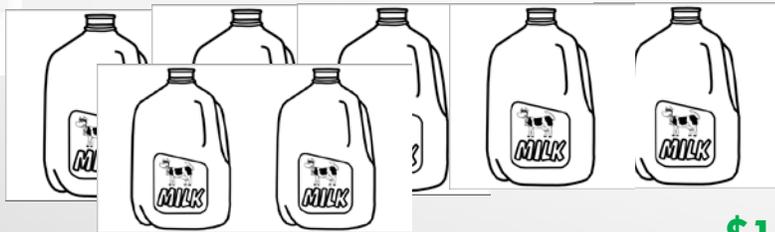
# MILK PRODUCTION %



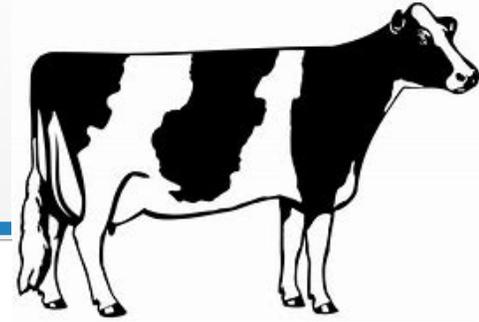
18,040#

305D ME

23,000#



\$17.89/cwt



1173#

Energy Corrected Milk

2672#



\$38/cwt

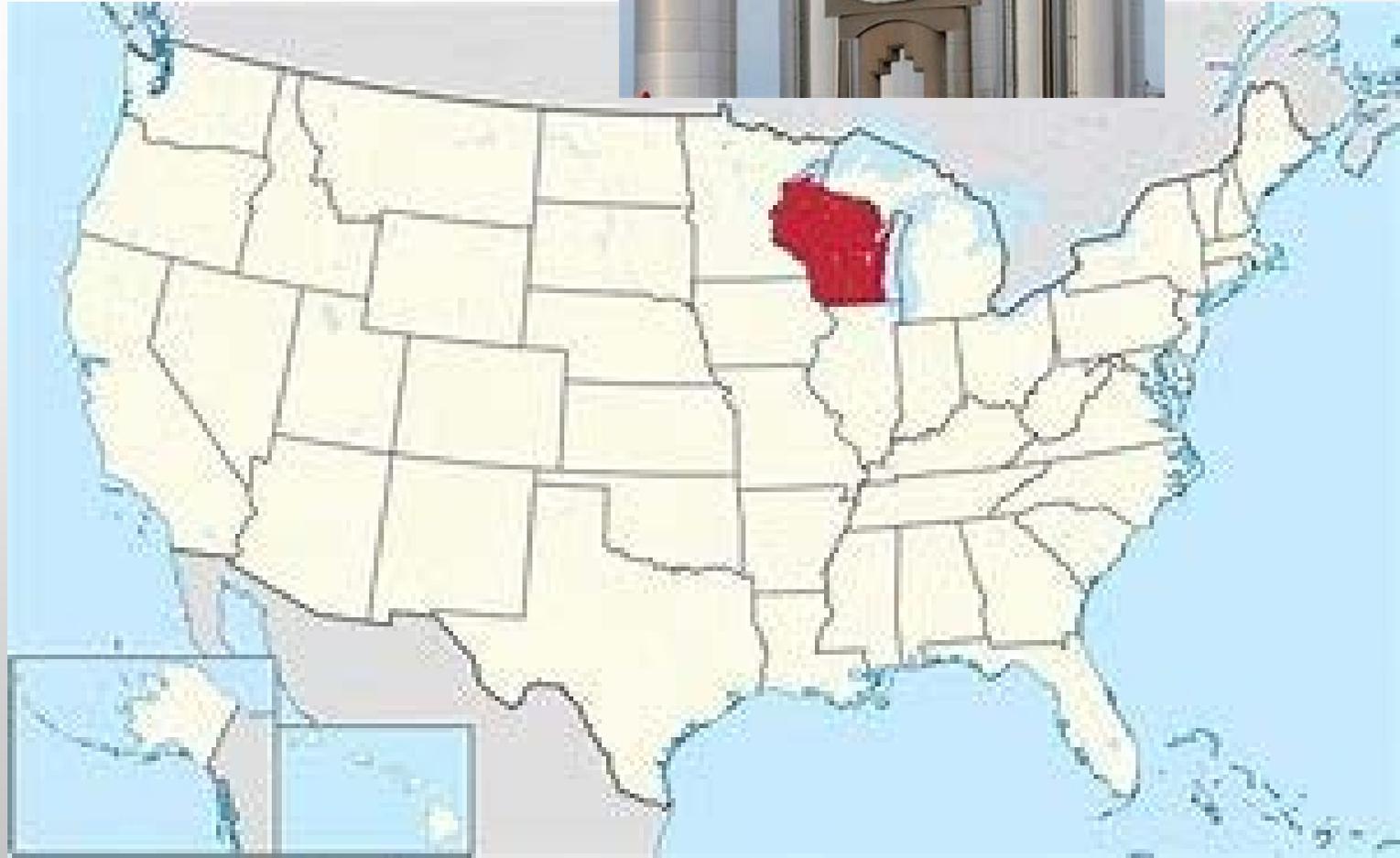


# WHERE?

- 13% OF US GOAT OPERATIONS
- ~4% ANNUAL GROWTH
- 2017 US HERD ~ 373,000

>57% IN TOP 10 STATES

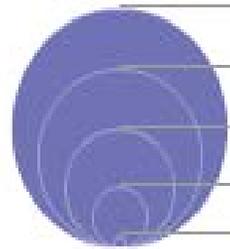
1. **WISCONSIN (44,000)**
2. CALIFORNIA (41,000)
3. **IOWA (30,000)**
4. PENNSYLVANIA (15,000)
5. NEW YORK (13,700)



# WORLD-WIDE GOAT MILK PRODUCTION



## Goat Milk Production



- 4,114,290
- 2,309,786
- 1,020,854
- 247,495
- 20

in tonnes  
Year: Latest Available  
Source: FAO Statistics Division

# MARKETS

- PROCESSOR CO-OPERATIVES (70% LARGE OPERATIONS TO CHEESE)
- DIRECT TO RETAIL/RESTAURANT
- DIRECT TO CONSUMER (100% SMALL OPERATIONS)
  - RAW SALES > PASTEURIZED SALES
  - ON-FARM, FARMER'S MARKET, INTERNET
  - LIVESTOCK, PET, AND PEOPLE
- VALUE ADDED FOR INCREASED INCOME
- 75% USE MILK FOR (GOAT) KID REARING
- 67% USE FOR HOME CONSUMPTION

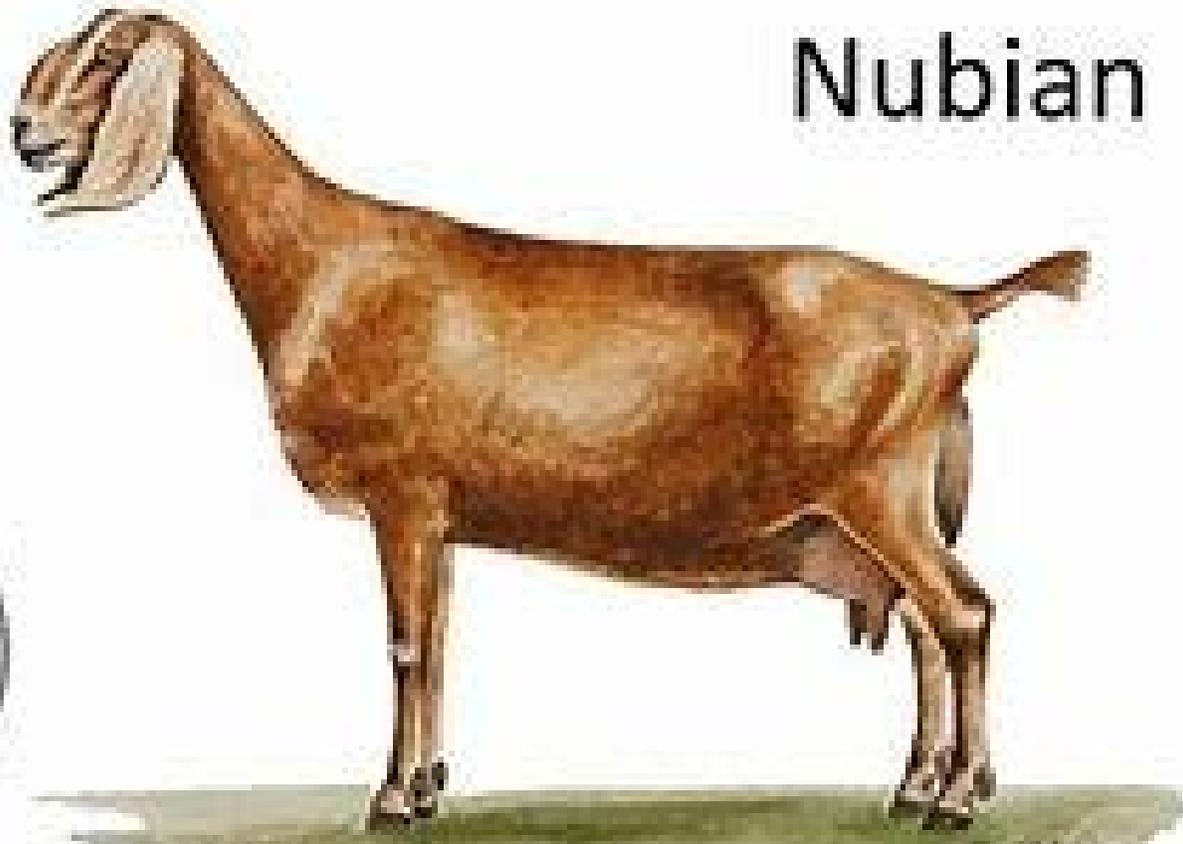


# WHAT - MAJOR BREEDS



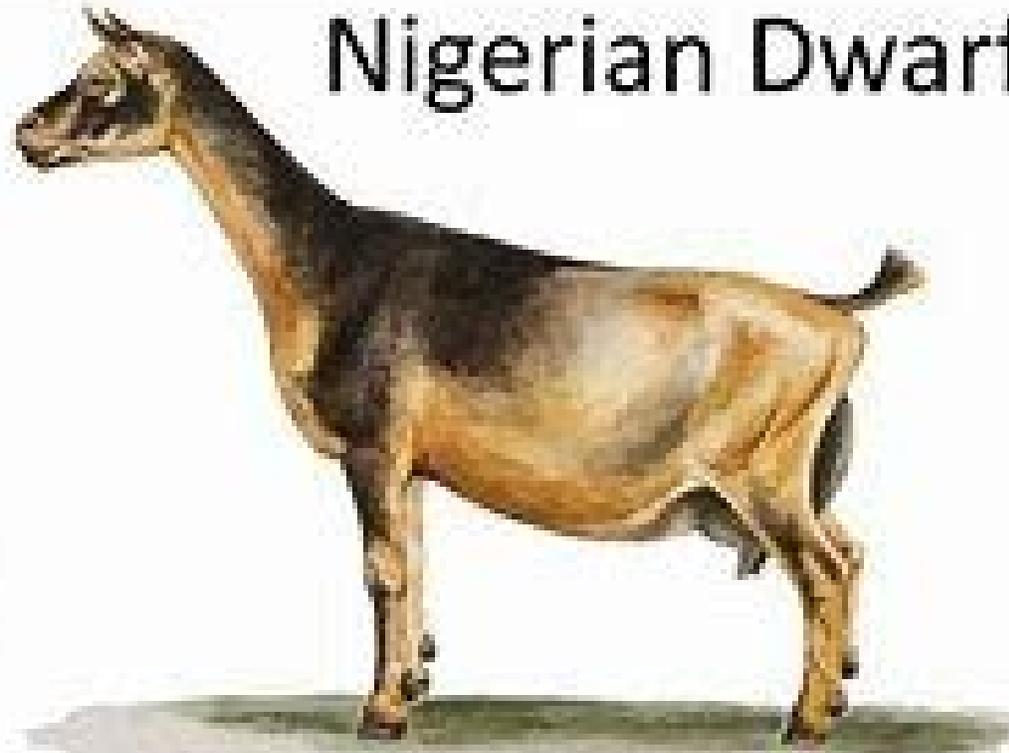
# WHAT - MAJOR BREEDS

Nubian

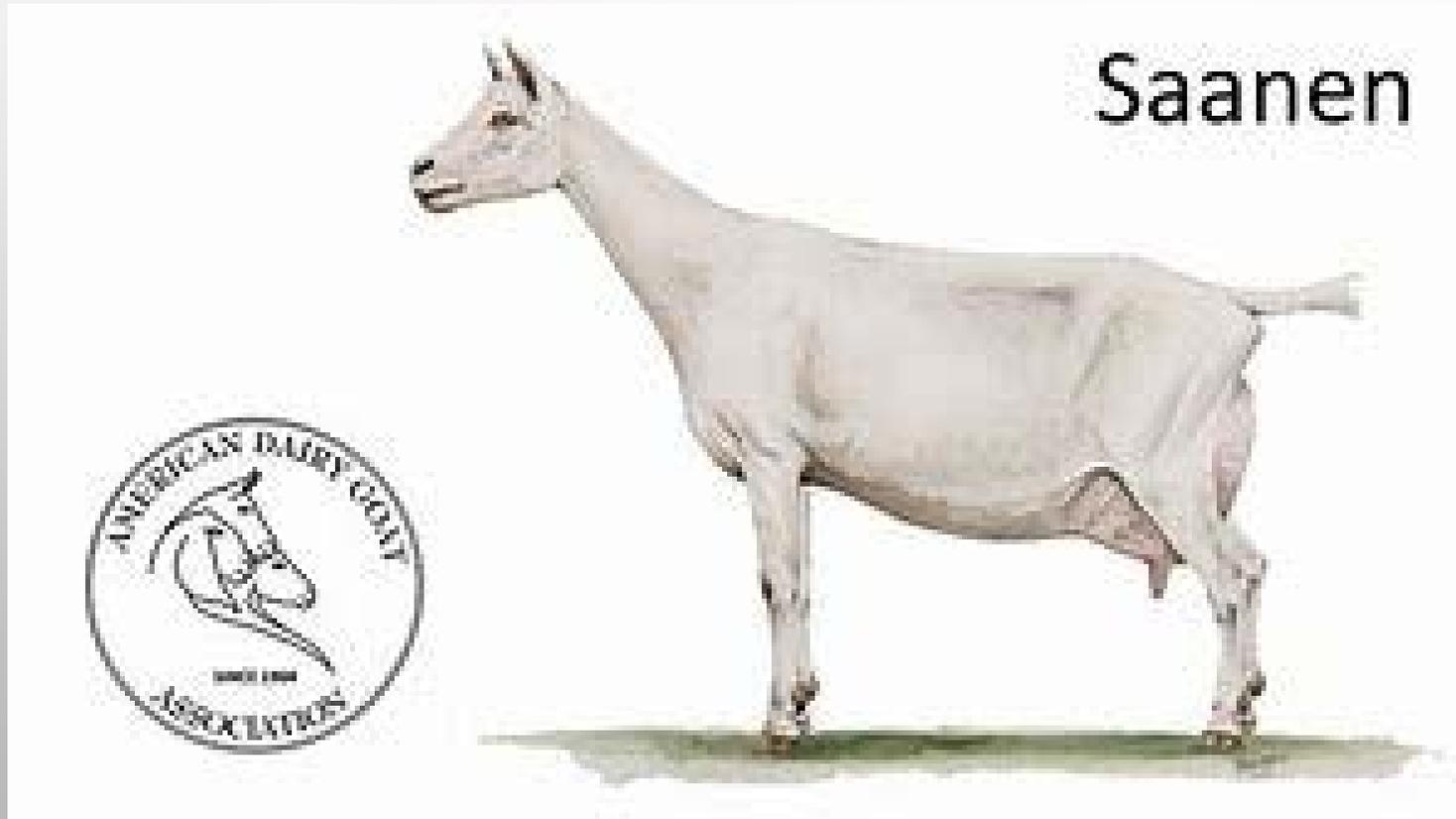


# WHAT - MAJOR BREEDS

## Nigerian Dwarf

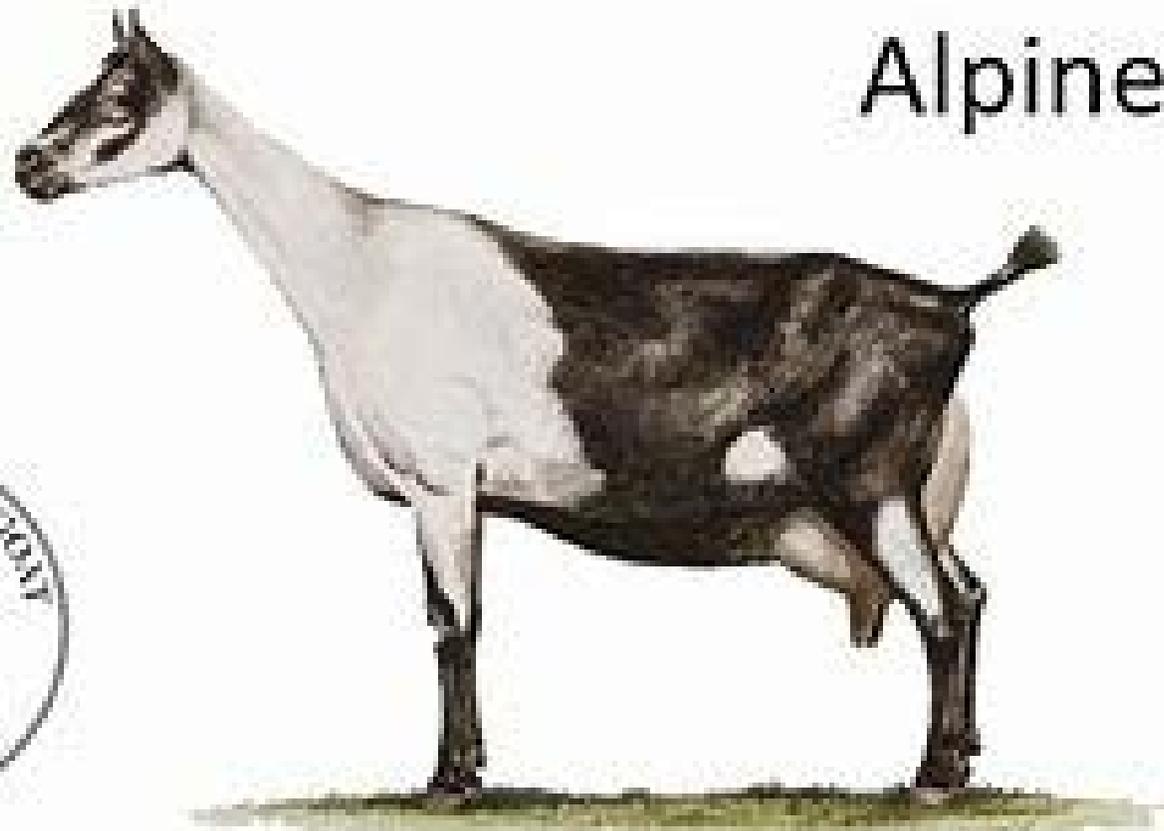


# WHAT - MAJOR BREEDS



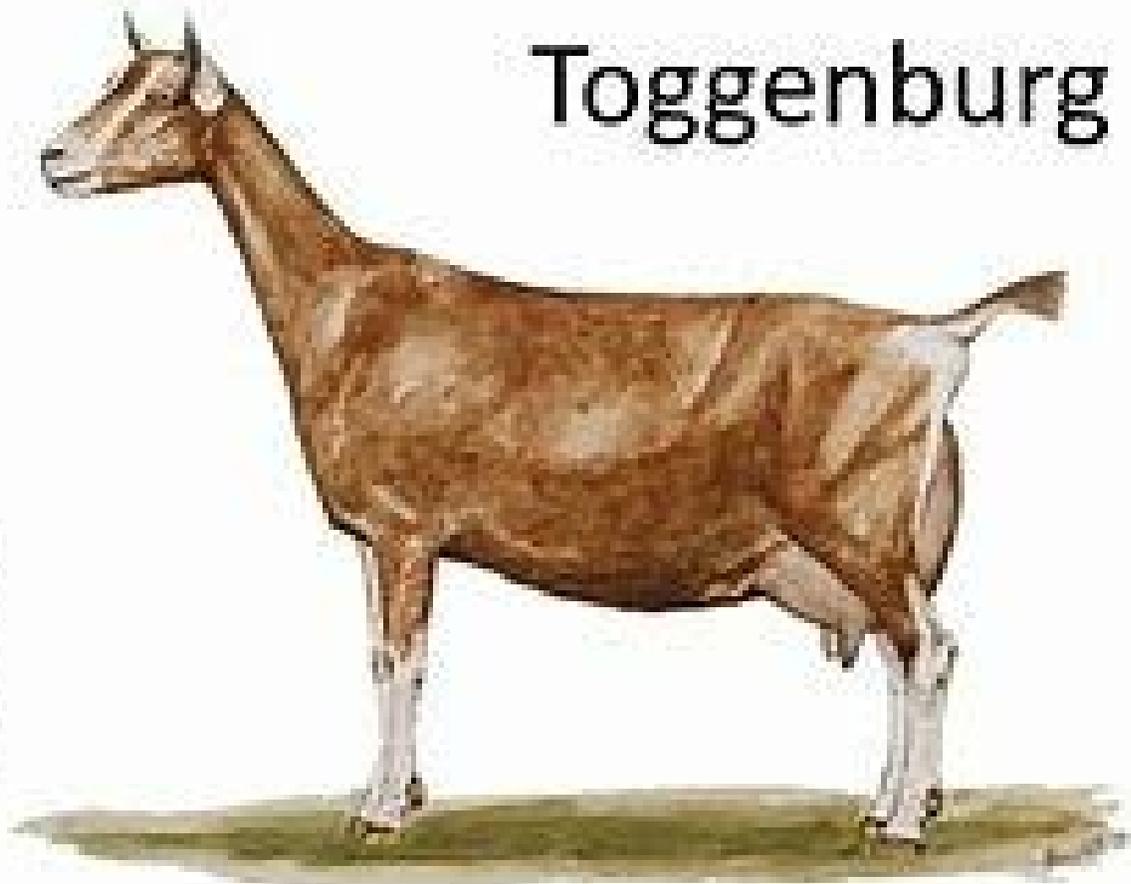
# WHAT - MAJOR BREEDS

Alpine



# WHAT - MAJOR BREEDS

## Toggenburg



# WHAT – MAJOR BREEDS

Oberhasli

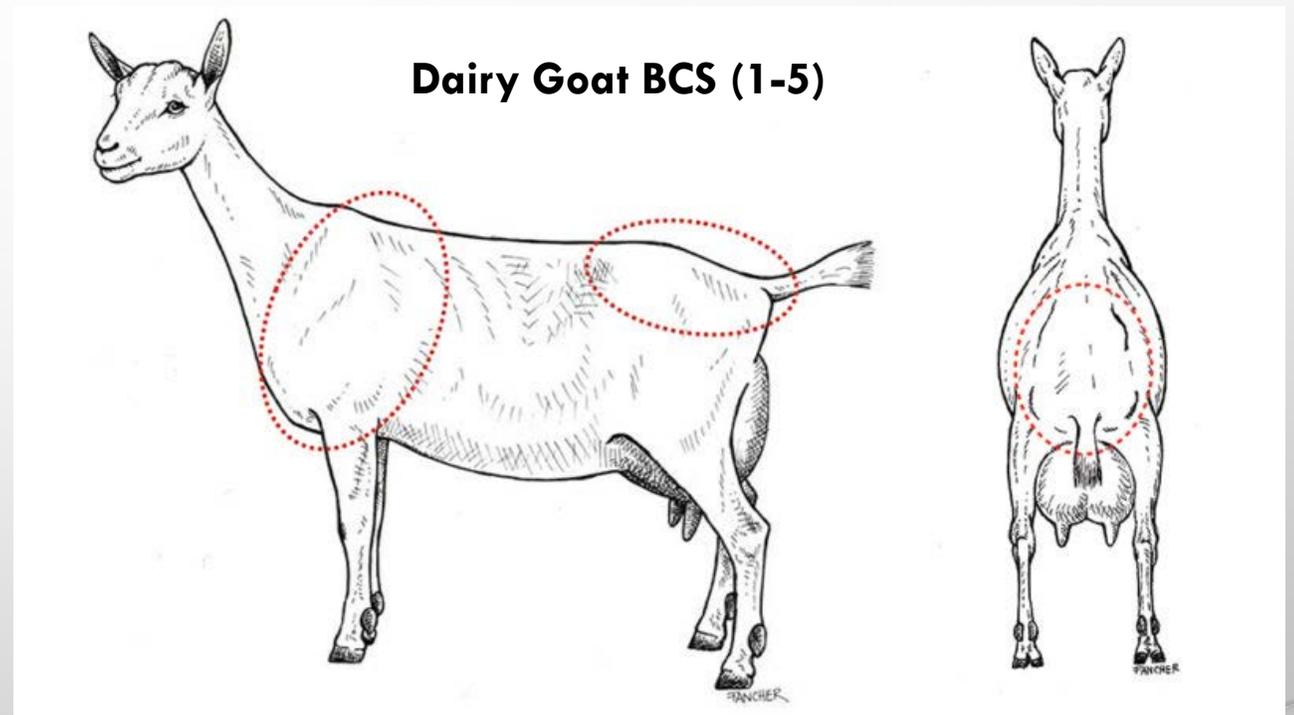


# WHO?

- HERD SIZE
  - <10 = MAJORITY OF HERDS
  - <100
  - 100-1000+ = MAJORITY OF COMMERCIAL MILK
- VARYING HUSBANDRY BACKGROUND
  - AVG. 13 YEARS IN INDUSTRY
  - COMMODITY SWITCH
  - NEW ENTRY TO LIVESTOCK
- DIVERSE MOTIVATIONS
  - <17% PRIMARILY ECONOMICALLY DRIVEN
  - 52% PERSONAL CONSUMPTION
  - 44% FOR FUN/HOBBY
- NETWORKED
  - 43% NATIONAL ASSOCIATION MEMBER
  - 26% LOCAL/ STATE ASSOCIATION MEMBER
  - SOCIAL MEDIA GROUPS
  - VET USEFULNESS?
    - RULE OF THIRDS

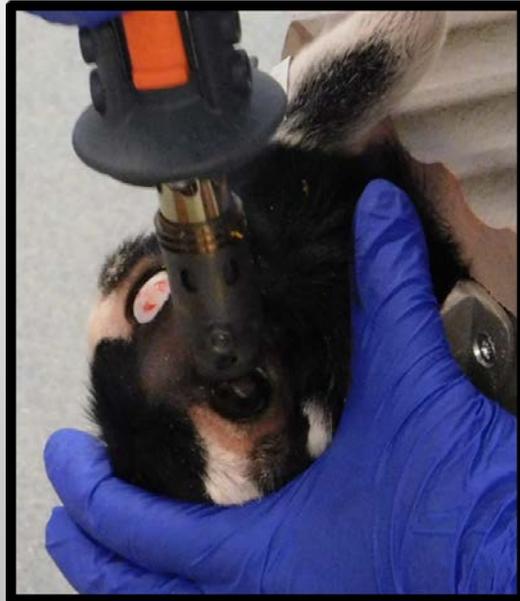
# HOW - HUSBANDRY “NORMS”

- REMEMBER:
  - 5% OF BW IN MILK PER DAY
  - 1-5 KIDS/YEAR
  - INTERMEDIATE FEEDER
- HOUSING VARIES
  - CONFINED ~20%
  - CULTIVATED PASTURE ~47%
  - UNCULTIVATED PASTURE ~28%
- FEED
  - FORAGE / CONCENTRATE
  - TMR LESS COMMON



# HOW - HEALTH “NORMS”

- VACCINES
  - CD/T CORE
- PARASITE CONTROL / FAMACHA SCORING
- DISBUDDING



- BIOSECURITY
  - BRUCELLOSIS
  - CAPRINE ARTHRITIS ENCEPHALITIS VIRUS (CAE)
  - CASEOUS LYMPHADENITIS (CL)
  - JOHNES
  - ~50% HEAT TREAT COLOSTRUM AND PASTEURIZE MILK
  - ~28% BOTTLE RAISE KIDS
- BREEDING
  - AI AND NATURAL COVER
  - WINTER MILK

# HOW - MILK QUALITY

- GRADE A PMO SCC LIMIT 1 MILLION (<500K ACHIEVABLE)
- 55% OF US HERD IS MACHINE MILKED
  - 90% OF SMALL HERDS HAND MILKED
- 65% TWICE DAILY MILKING
- ~50%...
  - USE TEAT PRE-DIP/ DISINFECTANT
  - USE SINGLE-USE TOWELS
  - USE POST-DIP
- DRY-OFF
  - >90% 60+ DAYS DRY
  - ~28% IMM DRY THERAPY
- CNS MOST COMMON IMI
  - PREDOMINANTLY SUBCLINICAL
  - ELEVATED SCC AND SPC
- STAPH AUREUS MOST COMMON CLINICAL
- GANGRENOUS MASTITIS
  - “BLUE BAG”
  - STAPH AUREUS AND MANNHEIMIA

# HOW - REGULATORY AND WELFARE

- SCRAPIE ID

- TAG
- TATTOO (REGISTERED)



- AWIN DAIRY GOAT WELFARE ASSESSMENT

- US BENCHMARKS.... IN PROGRESS
- LAMENESS
- EUTHANASIA
- BUCK KID PROBLEM

# QUESTIONS?



# AASRP

American Association of  
Small Ruminant Practitioners

