**NCERA219 SAES-422: Summary of Meeting Minutes**

**Dates: June 3 & 4, 2019**

**Location: Ramada by Wyndham Des Moines Airport**

Participants: Benny Mote, University of Nebraska-Lincoln; Ryan Samuel, South Dakota State University; Ken Stalder, Iowa State University; Steve Moeller, The Ohio State University; Brian Richert, Purdue University

Benny called the meeting to order at 1:30 pm on June 3, 2019. He welcomed guests Dr. Chris Hostetler, Director - Animal Science and Stephanie Wisdom, Director-Animal Welfare for the National Pork Board.

Chris and Stephanie presented the following updates from the National Pork Board:

* Bill Even just completed his third year as CEO for the National Pork Board
  + Good vision for NPB
  + Change in marketing focus from consumer to B2B (business to business)
  + Producer services restructured
  + Science & Technology restructure plans
    - New strategic plan from 2015 version
    - Goals:
      * More flexible
      * More responsive
    - Request for proposals typically sent in Oct, due in Nov, voted in Feb
      * Plans for a quicker turn around on responses to RFP submissions
        + Target specific researchers and their resources
    - 9 standing committees will be changed
      * Becomes one committee/task force
      * Task force will be more representative across the industry and more flexible
  + NPB building renovations
    - Commercial kitchen space complete
  + Pork Checkoff 4.0
    - 20 member task force that represents every link in the pork chain, from farmer all the way out to retailer, including nutrition
    - Make recommendations around direction, structure, and emphasis to operate at the speed of business
  + Need to train the next generation
    - Labor Task Force developing a series videos
* NPPC affected by canceling World Pork Expo
  + - Potential impact to NPB because the producers don’t want to pay more
* Voting this week on proposed changes
* Specific objectives for dollars
  + Domestic marketing
  + Producer & Industry Relations
  + Science & Technology
* History has been demand enhancement
* Packers benefit from NPB demand enhancement because they own pigs
* Research priorities decided by Science & Technology
  + Meets 4 times/year, with monthly teleconference calls
* There might be a RFP in Oct, but there might not be (see above)
  + More information in Sep

Brian Richert presented the following updates from Purdue University:

* First year in the new building
  + Some corrections to the building
  + All in one building
  + First floor for teaching
  + Large conference room
  + 50% larger meat lab
    - New product offerings improving revenue
  + 6 months into strategic planning
    - Staff cuts, change fees
  + 50 year old swine facilities
  + All units >30 years old
  + Potential department head retirement
  + Placental biologist faculty position offers made
  + Interviews for poultry science position
  + New hire in animal genetics
  + Marcos Fernandez moving back into Animal Science
  + Retirements:
    - John Patterson
    - Christopher Bidwell
    - Terry Stewart
    - Susan Eicher
  + Projects:
    - In utero heat stress project
      * Lab work is complete
    - Farrowing induction protocol
      * Blood glucose measurements
      * Field study with The Maschhoffs
    - Cooling pads for boars
    - Stage of gestation heat stress
    - Scratch pads for sow enrichment
    - Pen enrichment in lactation and/or nursery
      * First sows next week
    - Iron dose and vaccine response
      * Sufficient iron dose
    - Glutamine with probiotic
      * No effect of combination after freeze drying
    - Frozen semen protocols
      * Follicle development delayed
    - Enzyme and probiotic work
      * European type diets
    - Medium chain fatty acids and Porcine Reproductive and Respiratory Syndrome (PRRS)
      * Some response
    - Stress effects
    - Embryo transfer/embryology

Ryan Samuel presented the following updates from South Dakota State University:

* Administration and program changes and construction projects:
  + Dean of College of Agriculture Food and Environmental Science (new name): John Killefer formerly at Oregon State University
  + New Precision Ag program and Precision Ag building (early construction plans)
  + Expanded Disease Research and Diagnostics facility (under construction)
* Departmental faculty changes:
  + Dr. Zach Smith started as rumen nutritionist (feedlot emphasis; 80% research, 20% teaching)
  + Brady Jensen started as livestock judging coach
  + Carmen Paulson started as equine instructor
  + Dr. Derek Brake moved to University of Missouri as rumen nutritionist
* Projects:
  + Efficiency of AA utilization by stage of gestation and parity
  + Impact of essential oil and/or yeast products in gestation and lactation on sow and offspring antioxidant status, offspring performance through early post-weaning period and sow gut permeability
  + Gestational phase feeding program on offspring performance and robustness
  + Feed additives on intestinal microbial populations and intestinal health
  + Hair cortisol accumulation in sows and piglets as a means to assess impact of gestation housing on sow welfare
  + Various phytochemicals on growth performance and gut health of weaned pigs
  + Effects of fiber-degrading enzymes on nutritive value of DDGS for growing-finishing pigs
  + Nutritive value of cold-pressed oilseed co-products for weaned and growing-finishing pigs
  + Effects of fiber-degrading enzymes on the nutritive value of cold-pressed oilseed co-products for growing-finishing pigs
  + Effects of fiber-degrading enzymes and direct fed microbials on growth performance and gut health of weaned pigs
  + Effects of proteases on growth performance and gut health of weaned pigs
  + Use of feed additives to improve growing and finishing pig performance
  + Application of management strategies to improve growing and finishing pig performance

Ken Stalder presented the following updates from Iowa State University:

* Potential new facilities
* New feed mill funding
* Contract finisher
* Open positions:
  + Department chair
  + Lush chair – genetics
  + Teaching position
  + Meat science Extension
  + Small ruminant lecturer
  + Interim dean of Extension
  + Beef genetics
* Recent hire:
  + Laura Greiner
* Retirements:
  + John Patience
  + Max Rothschild
* 1100 students in department
* Daniel Robison new Dean of the College of Agriculture and Life Sciences
* Projects:
  + Group housing vs crated sows
  + Colostrum project
    - Crossbred effect
    - Parity effect
  + NPB sow longevity
    - Jason Ross
  + Heat lamp vs heat mat
  + Cull sow value
  + Moon phase effect on semen

Steve Moeller presented the following updates from The Ohio State University:

* Facility dilemma because not good for work, but should they invest
  + Still hoping for multispecies learning center
  + Trying to get space and housing for 16 sows
* AALAC accreditation visit coming up
* Department head wants nutritionist, but difficult without facilities
* 2 new faculty
* Hoping to get positions back:
  + Monique Pairis-Garcia moved to NC State
  + Meat scientist
  + Teaching
* Projects:
  + Castration and tail docking analgesic
    - 5 seconds more to give meloxicam
      * Adds up quickly in large system
    - Barrier wound spray had some negative results
    - Topical Banamine – no response

The meeting was adjourned for the day at 5:15 pm on June 3, 2019.

Benny called the meeting to order at 8:30 am on June 4, 2019. He welcomed back guest Dr. Chris Hostetler, Director - Animal Science.

Benny Mote presented the following updates from University of Nebraska-Lincoln:

* Slow remodel at the sow farm
  + $$$
  + Farm manager illness
  + 6 x 8 crates going in (Big Dutchman)
* Newly remodeled farrowing and gestation on campus
  + 6 x 8 Thorp turnaround crates with Gestal feeding systems
* New livestock judging coach
* Failed search for meats coach
* Pestivirus issue – shaker pigs
  + Decreased litter weight
  + Bigger pigs affected more
* Pig issues meeting with Jim Pillen
* Hosted the National Swine Improvement Federation (NSIF) Ultrasound Training and Certification Conference
  + 9 participants
* Faculty:
  + Nebraska Integrated Beef System Initiative - John Pollock
  + New hire Tami Brown-Brandl
* Service agreements – 48% overhead on everything going through IACUC review
* Projects:
  + Frozen semen
    - 62% conception PCAI
  + Sow longevity
    - Video of structure
      * Selecting gilts
    - Zinpro chute to look at feet
      * Toe growth up to weaning, reduces by mid-gestation
    - Two stages to restricted feeding
      * Compensatory gain?
    - Strict protocols
      * Mother and grandmother had to complete 4 parities
  + 2D tracking with security cameras
    - X-Box connect too much data
    - LPS challeng
    - Younger vs older animals
  + Boar fertility
    - Heritable trait – blood flow to testes

Gary Apgar (by phone) presented the following updates from Southern Illinois University:

* Interim dean
  + Less ag focus
* University reorganization
* No pigs on campus
  + Welfare issues
    - Faculty not authority
    - Expensive to refurbish facilities
* Projects:
  + Fiber ropes in gestation for sow enrichment
    - Late-gestation
    - Mixing periods
  + Medical marijuana byproducts
    - Kemin investing in cannabis
    - Small reps at different sites
    - Reduce aggression by fiber
      * Fermentable >10%
      * 3% diet inclusion?

Gary Rohrer (by phone) presented the following updates from USMARC:

* + Swine focus group – First afternoon
    - Projects
      * Sow longevity
      * Pre-weaning mortality
      * More economic production
      * Electronic monitoring of pigs
      * Developing a training farm in Iowa
        + Junior college
    - Discussion
      * Define sustainability
        + Long-term of industry

Economics

Labor

Sow longevity

Educate consumer – domestic

Sell product – export

* + - Research
      * Limited large projects
      * Pork quality issues

Committee project ideas:

* Tracking gilt and sow gait using the force plate
  + Benny share the cost and info about the force plate
    - Placement within ESF
    - Calibrate weekly
    - Weight/foot vs total weight
  + Goal – to detect lameness compared to normal behavior baselines
    - How early and accurately can it be detected?
* Boar/semen management
  + What is that data behind why technicians rock semen 2x per day?
  + Reduce discards due to heat stress
    - Cooing pads
    - AC studs
    - Access to cool spots
  + Ultrasound blood flow pampiniform plexus
    - Dilated veins = Varicoceles, common cause of low sperm production and decreased sperm quality
    - Identify poor boars more quickly
  + Boar stud locations in the event of FAD
    - Testing
      * Validated labs?
    - Biosecurity/isolation
      * PIN data available?
* Biological markers and piglet birthweight data for individuals across the stations
  + Foxcroft says ~20% of selected gilts never contribute to herd genetics
* American Farm Rubber heat mat
  + Piglet micro environment
* Technician time in the barn in the specific locations
  + Welfare implications if the farrowing technician is in breeding
* Pig barn environment labor implications
  + How are technicians trained and protected?
    - Staff training modules
    - Low birthweight piglets
    - Tail docking/castration protocols
    - Perception of welfare
  + Org chart from a company? Producer survey?
    - Education level
    - Work environment
    - Positions
    - Compensation

Report from the Administrative Advisor, Ernie Minton, interim dean of the College of Agriculture and interim director of K-State Research and Extension

* Future of the committee
  + 1 year to renewal
    - Start in Sep
    - Identify stations by Thanksgiving
    - Submit for review by end of year
  + Transition to regular research committee
    - Access to funds?
    - Most consistent interpretation is that AES funds can support a member to travel to multistate meeting of a research committee
      * Research objectives vetted
  + Multistate objectives
    - Need in order to get replication
    - Education through Porkbridge and Sowbridge

Closing business:

Officer elections:

Ryan Samuel, President

Marcia Shannon, VP/Secretary

Potential future meeting location:

Goldsboro, NC

Contacts: Mark Knauer, Jonathon Holt

The meeting was adjourned at 1:45 pm on June 4, 2019.