**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.