

Technology Needs and R&D Initiatives for the Enhancement of the Philippine Swine Industry Productivity and Production Efficiency

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Empowering Technology for Pig Breeding – Philippines & Taiwan



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Outline of Presentation

- What is PCAARRD
- The PCAARRD Industry Strategic S&T Plan (ISP) for the swine commodity (2011-2016)
- Current R&D initiatives for the Philippine swine industry



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What is PCAARRD

- Is the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development
- Established on 10 November 1972
- Is one of the 3 planning councils of the Department of Science and Technology (DOST) that is tasked to lead R&D planning and technology generation for the agriculture, aquatic and natural resources (AANR) sectors
- Is ISO 2001-2008 certified



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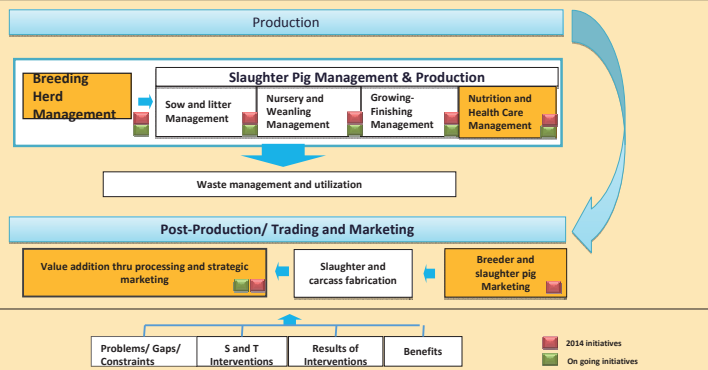
PCAARRD Mandates

- R&D planning and policy formulation for strategic development of the AANR sectors
- Programming and allocation of external and government funds for AANR R&D
- Monitor and evaluate R&D projects in AANR
- Generate external funds for R&D



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The PCAARRD Industry Strategic S&T Plan for Swine (2011-2016)



Desired Outcomes by 2020:

- ↑ in pigs weaned per sow per year from 19 to 22
- ↑ average daily gain from 545 to 600 g.
- ↑ liveweight produced per sow per year from 1.6 to 2.1 tons
- ↑ Feed conversion ratio from 3 to 2.5
- ↓ Pre-weaning mortality from 10 to 5%
- Ensure quality and safety of pork



Current R&D Initiatives and Deliverables

Area of concern in the ISP	Industry Problem	S&T Intervention	Deliverables
a. Breeding herd production and management	Low litter size and overall productivity of sows Low	<ul style="list-style-type: none"> • Application of gene marker technology for selection of positive genes and screening of genetic defects 	Increase number of pigs and liveweight produced per sow per year
	Unstable supply of raw materials for the production of specialty pork products	<ul style="list-style-type: none"> • Identification of productivity genes and signs of Austronesian migration of native pigs of Philippines and Taiwan • Community-based Philippine Native Pig breed development 	Gene markers associated to productivity of native pigs Phylogenetic information on the Philippine and Taiwan native pigs Signature breeds of Philippine native pigs Available breeder stocks of Philippine native pigs



Current R&D Initiatives and Deliverables

Area of concern in the ISP	Industry Problem	S&T Intervention	Deliverables
b. Breeding herd production and management	Lack of breed registry system for purebred breeder pigs	<ul style="list-style-type: none"> • Development of computer assisted remote expert (CARE) system 	CARE system for Improved efficiency of swine farm management
		<ul style="list-style-type: none"> • Establishment of breed registry for purebred swine 	Swine breed registry database
c. Swine health	High preweaning mortality due to inefficient disease diagnosis	<ul style="list-style-type: none"> • Development of molecular-based assays and quick test kits for piglet diarrhea and respiratory diseases 	LAMP-based quick test kits for respiratory and enteric diseases
d. Nutrition and feeding	Unstable supply and high prices of soy bean oil meal	<ul style="list-style-type: none"> • Fermentation technology for protein enrichment of copra meal 	Copra meal protein enhancement technology Protein enriched copra meal



Current R&D Initiatives and Deliverables

Area of concern in the ISP	Industry Problem	S&T Intervention	Deliverables
e. Swine industry product marketing and trading	Limited access to markets of breeder pigs, semen and specialty products from native pig based	<ul style="list-style-type: none"> Establishment of E-trading facility Development of value-added Etag products 	<p>E-trading facility for high value swine products</p> <p>Etag-based powder, flakes, bouillon and liquid seasoning</p> <p>Quality assurance protocol for etag raw materials</p>
	Lack traceability system for commercial pork	<ul style="list-style-type: none"> Development of traceability system and product quality verification system 	<p>Pork traceability system from farm to fork</p>



It's a pleasure to be with you in this conference...

Thank you

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