Outline of presentation

• The Philippine Native Animals
• Animal Genetic Conservation (FAO)
• Breeding strategies and practices
• Utilization of Phil. native animals
• Conclusion
DA Administrative Order No. 15 s. of 2010 .. Signed August 2, 2010

- Established the Program for the Conservation and Utilization of Domesticated Native Food Animals

The Global Plan of Action for Animal Genetic Resources (FAO, 2007) recognizes that “A good understanding of breed characteristics is necessary to guide decision-making in livestock development and breeding programmes”

Native pigs in Kalinga Province.

- Native pigs roam freely
- No housing provided.
- Pigs are fed rice bran, root crops and mixed kitchen wastes.
- No health care is given
- Uncontrolled mating is common
- Most of the families’ raise a sow with offspring’s being grown for especial family celebrations.
Reproductive Performance of Bundok Peninsula Strain

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Sows farrowed</td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td>Piglets born alive</td>
<td>88</td>
<td>170</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male %</td>
<td>59.52</td>
<td>48.95</td>
</tr>
<tr>
<td>Female %</td>
<td>40.48</td>
<td>51.05</td>
</tr>
<tr>
<td>Ave. piglets born alive</td>
<td>5.50</td>
<td>6.35</td>
</tr>
<tr>
<td>Ave. Pre weaning mortality %</td>
<td>3.57</td>
<td>6.60</td>
</tr>
<tr>
<td>Ave. Weaning Age</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Ave. Weaning Weight</td>
<td>5.27</td>
<td>5.35</td>
</tr>
<tr>
<td>Ave. Litter Size at weaning</td>
<td>5.30</td>
<td>6.12</td>
</tr>
<tr>
<td>Percent Livability 0-45 days</td>
<td>96.43</td>
<td>93.38</td>
</tr>
<tr>
<td>Ave. gestation period</td>
<td>114</td>
<td>114</td>
</tr>
</tbody>
</table>

24 heads were subjected to phenotypic characterization at the age of six month from birth.
PIGS

- Stocks are product of 1998 collection of different strain of native pigs from
  - Benguet,
  - Marinduque,
  - Quezon.
- Selection based on some traits and qualities i.e. weight gain, litter size, body conformation, and color (black)
- Kalinga strain was acquired in 2008 in Tinglayan, Kalinga,
  - five (5) female and one (1) male, succeeding stocks from Tabuk Kalinga

Selection Criteria/Strategies

- Native pigs: nsprdc 2000
- Average litter size > 8 piglets
- Weaned piglets per litter > 7 piglets
- Weaning age 45 days
- Body Weight at 12 weeks old (BW12)
- Body weight at 20 weeks old (BW20)

Application of Genetics

Semen collection of Philippine Native Pig at BAI-NSPRDC.

Projects

“Conservation, Improvement and Profitable Utilization of Philippine Native Pig” project funded by PCAARRD and implemented by BAI-NSPRDC
### Average Performance of Native Pigs

**NSPRDC** 1999 : 2012

- **Average litter size**: 6.5 8.2 piglets
- **Average birth weight**: 634 700 grams
- **Weaned piglets per litter**: 6.75 piglets
- **Weaning age**: 60 45 days
- **Ave. weaning weight**: 7.49 7.20 kgs.
- **Ave. live weight**: 2 mos 7.49 9.00 kgs.

<table>
<thead>
<tr>
<th>Age (weeks)</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>11.19</td>
<td>18.2 kgs.</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>25.00 kgs.</td>
</tr>
<tr>
<td>5</td>
<td>-</td>
<td>38.30 kgs.</td>
</tr>
</tbody>
</table>

### BT-KALINGA Native Pig
**Good Mothering Ability and Hardy**

**Production Characteristic**

- Age at first mating, weeks: 22 37
- Age at first farrowing, weeks: 22 37
- Ave. litter size alive, hds: 0.700
- Ave. birth weight, kg: 46
- Weaning age, days: 5.36 11.4
- Gestation period, days: 90
- Farrowing rate, %: 0.700

**Feed Efficiency**

- Feed consumption 0-7 weeks, kg: 5.75 115
- Feed consumption 7-20 weeks, kg: 639
- Ave. daily gain 6-30 weeks, g: 146.4

**Body weight**

<table>
<thead>
<tr>
<th>Age (weeks)</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>3.94</td>
<td>3.74</td>
</tr>
<tr>
<td>8</td>
<td>4.90</td>
<td>4.31</td>
</tr>
<tr>
<td>12</td>
<td>7.34</td>
<td>7.65</td>
</tr>
<tr>
<td>16</td>
<td>13.75</td>
<td>12.91</td>
</tr>
<tr>
<td>20</td>
<td>16.55</td>
<td>15.45</td>
</tr>
<tr>
<td>30</td>
<td>18.58</td>
<td>17.38</td>
</tr>
</tbody>
</table>

### BT - BLACK PIG
**Philippine Native Pig**
**Good Litter Size and Mothering Ability**

**Production Characteristic**

- Age at first mating, weeks: 24 39
- Age at first farrowing, weeks: 39 8
- Ave. litter size alive, hds: 0.800
- Ave. birth weight, kg: 41.38
- Weaning age, days: 6
- Litter size at weaning, hds: 114
- Gestation period, days: 90
- Farrowing rate, %: 6.30

**Feed Efficiency**

- Feed consumption 0-7 weeks, kg: 140
- Feed consumption 7-20 weeks, kg: 900
- Average daily feed intake per hd, g: 172

**Body weight**

<table>
<thead>
<tr>
<th>Age (weeks)</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4.48</td>
<td>4.23</td>
</tr>
<tr>
<td>8</td>
<td>7.03</td>
<td>6.41</td>
</tr>
<tr>
<td>12</td>
<td>13.16</td>
<td>12.53</td>
</tr>
<tr>
<td>16</td>
<td>18.05</td>
<td>17.90</td>
</tr>
<tr>
<td>20</td>
<td>25.55</td>
<td>24.22</td>
</tr>
<tr>
<td>30</td>
<td>31.20</td>
<td>30.02</td>
</tr>
</tbody>
</table>

### Pyramidal Breeding Structures (native Pig)

- **BAI + Selected Private Breeding Farms**
- **Multiplier Farms**
- **Commercial Farms**
- **Weaners, grower for lechon**

**Philippine Native Pigs**

#### BAI - Kalilinga Native Pig
**Good mothering ability and hardy**

**Primary utilization**: Meat, ritual and other Socio-Cultural Practices

- Black with white legs (socks) some with white under belly, white in forehead and tail. Ears are small and erect with long and thin snout, swayback with belly almost touching the ground.

**Philippine Native Pigs**

#### BT Black Pig
**Good litter size and mothering ability**

**Primary utilization**: Meat specifically for “lechon production”

- It has long cylindrical snout with straight head profile, the ear is semi lop, it is black in color with smooth skin and straight backbone.

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**Images and Diagrams**:
- Images of pigs and pig farming scenes.
- Diagram showing pyramidal breeding structures with various types of farms.
Prospect of Raising Native pigs

- Prepared breeds for “lechon” (roasted pig) ave. weight 15-25 kgs liv wt.
- High demand for native pigs due to its particular (pinoy) taste (lechonero)
- High value P 150.00 -180.00 per kg live wt.
- adapted to local condition, can be raised in far barangay’s with minimal inputs
- Economic traits (e.g. growth, litter size, good taste) can be improved through selection
- Ideal breeds for natural or organic pork (pig) production

“Improvement of Processing Technologies for Meat and Skins from Selected Strains of Native Pigs”
DA-BAR and (APDC).

Products and Prospect of Native Pig

Conclusion

- A good understanding of breed characteristics is necessary in livestock development and breeding programmes
- FAO Action Plan on characterization (phenotypic and genotypic) is suggested guide for breed development
- Breeding criteria/strategies has to be in place for breed development and improvement
- Establishment and maintenance of breeder farms (govt/farmers)
- Conservation with utilization is a must for breed sustainability