

## APPENDIX

### Appendix A: Questionnaires and Check List

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#### Fattening Farm Information

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Date of investigation.....Investigator.....

Farmer.....Address.....

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#### 1. Animal

1.1 Breed

2X

3X

1.2 Number/farm

<400

401-800 pigs

>800 pigs

#### 2. DLD certification

certified

applying

non-certified

#### 3. Health problem

no problem

respiratory disease

enteric disease

other.....

#### 4. Feed and feeding system

4.1 Type of feed

pellet

powder

4.2 Type of feeding system

trough

mechanical

automatic

4.3 Frequency of feeding/day

1 time

2 times

≥ 3 times

4.4 Sanitation of feeding system

.....

.....

4.5 Feed storage

.....

.....



8.2 Therapeutic antibiotic (dose and duration)

- 1. ....
- 2. ....
- 3. ....
- 4. ....

8.3 Vitamin and Minerals

Yes/with.....

No

8.4 Probiotic usage

Yes/with.....

No

8.5 Deworm program

Yes/with.....

No

8.6 Isolation of sick animal

Yes/with.....

No

**9. Hygiene and sanitation**

9.1 Sanitation of pen and housing

.....

.....

9.2 Personal hygiene

.....

.....

9.3 Cleaning and disinfection procedure

.....

.....

9.4 Frequency of cleaning

.....

.....

9.5 Type of disinfectant

.....  
.....

9.6 Pest control procedure

.....  
.....

**10. Production parameter**

10.1 Age at start (wk) .....

10.2 Age at the end (wk) .....

10.3 Live weight at start (kg) .....

10.4 Live weight at the end (kg) .....

10.5 Total feed used (kg) .....

10.6 Average daily gain (ADG) .....

10.7 Feed conversion rate.....

10.8 Percentage of loss.....

**11. Waste management**

Biogas.....

Slurry.....

Nothing.....

**12. Veterinary services**

.....  
.....

Number of visiting per month.....

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## **Appendix B: Equipment, Materials, Media and Reagents**

### **1. Lab Equipment and Materials**

- Sterile 500, 1000 and 2000 ml Erlenmeyer flasks, sterile 250 and 500 ml beakers, and containers of capacity to accommodate samples
- Balance with a 2000 g-weights capacity and a sensitivity of 0.1 g
- Incubator, 37 and 42 C
- Laboratory refrigerator, - 20 C and -1 to 4+ C
- Water bath
- Sterile spoons for transferring faecal samples and media
- Sterile culture dishes, 15\*100 mm, glass or plastic
- Sterile pipettes
- Inoculating needle and inoculating loop (10 micrometer)
- Culture tubes, 16\*150 and 20\*150 m
- Test or culture tube racks
- Vortex mixer
- Stomacher machine.
- Sterile scissors, scalpel, and forceps
- Bunsen burner
- Stomacher bags and plastic bags
- Appendop
- Autoclave

### **2. Equipment and Material for Sample Collection**

- Sterile cotton sock swabs
- Disposable hand gloves
- Stomacher bags and plastic bags
- Buffered peptone water (BPW)
- Sterile 1000 ml. Duran bottle
- Marker pens

- Alcohol, cotton, lighter
- Normal saline
- Disposal gloves, boots and lab coat
- Ice box with ice
- Snare

### 3. Media, Reagents and Chemicals

- Buffered Peptone Water (BPW)
- Nutrient agar (NA)
- Brilliant-green Phenol-red Lactose Sucrose Agar (BPLS)
- Xylose Lysine Tergitol 4 agar (XLT4)
- Muller Kaufmann Tetrathionate broth (MKTT)
- Rppaport-Vassiliadis broth (RV)
- Triple Sugar Iron Agar (TSI)
- Urea Agar
- Motility Indole Lysine Decarboxylation (MIL)
- Voges-roskauer Reaction (VPR)
- *Salmonella* polyvalent somatic (O) antiserum A- E
- *Salmonella* polyvalent somatic (O) antiserum F- 67
- *Salmonella* somatic (O) antiserum- *Salmonella* group B (O4, O5 , O27)
- *Salmonella* somatic (O) antiserum- *Salmonella* group C (O7, O8)
- *Salmonella* somatic (O) antiserum- *Salmonella* group D (O9, Vi)
- *Salmonella* somatic (O) antiserum - *Salmonella* group E (O3, O19)
- Anti- *Salmonella* flagella (H) e.g. e, f, g, h, i, k, l, m, p, q, r, s, t, u, v, w, x, z<sub>4</sub>, z<sub>23</sub>,

z<sub>6</sub>, z<sub>29</sub>, z<sub>32</sub>, 1, 2, 5, 6, 7

## CURRICULUM VITAE

### 1. Personal data

Name: Mr. Samart Dorn-in  
 Work position: Farm Technician  
 Work address: Betagro Hybrid Internation Co. Ltd.,  
 Betagro Tower (North Park) 323 Vibhavadi Rangsit  
 Road, Laksi, Bangkok Thailand 10210  
 Telephone: (662) 955-0555  
 Facsimile: (662) 955-0420  
 E-mail address: [Samart\\_d@hotmail.com](mailto:Samart_d@hotmail.com)  
[Samart\\_dornin@yahoo.com](mailto:Samart_dornin@yahoo.com)  
 Home address 259/1 Moo 1, Tumbol Nongyakao, Aumper Sikew,  
 Nakhonratsima, Thailand 34140  
 Marital status Single  
 Date of Birth: April 19, 1974  
 Citizen: Thai  
 Second Language: English

### 2. Education background

1994-1999 Doctor of Veterinary Medicine, Faculty of Veterinary  
 Medicine, Khon Kaen University, Khon Kaen

1991-1993 Satit Mordindaeng High School, Khon Kaen University,  
 Khon Kaen

1988-1990 Kaowraisugsa Secondary School, Mahasarakam

1982-1987 Wangyaow Wittayayon Primary School, Mahasarakam

### 3. Occupational experiences

1999 Poultry Farm Veterinarian, Chia-Aree Company,  
 Thailand

1999-present Farm Technician, Betagro Hybrid International Co.  
 Ltd., Thailand

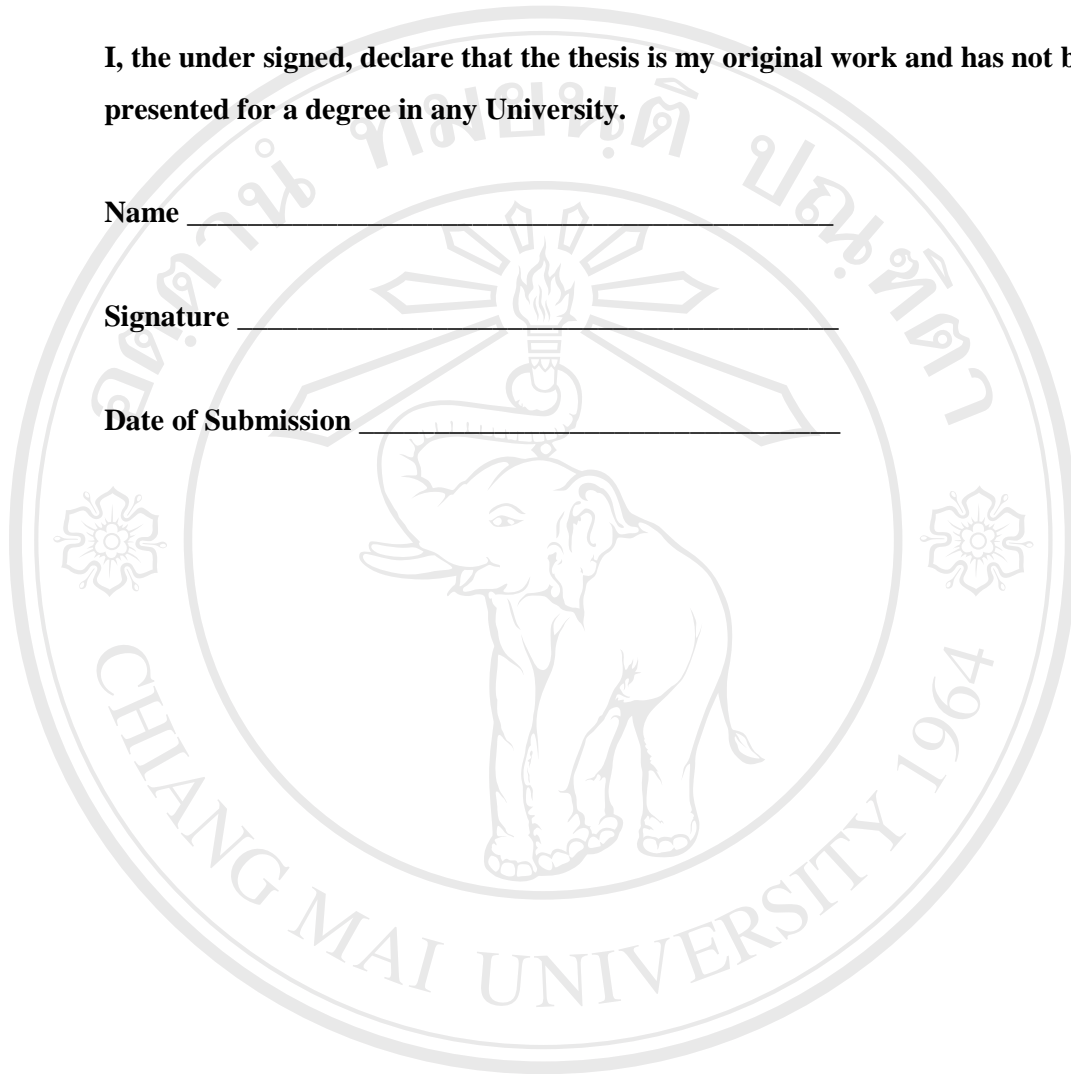
**DECLARATION**

**I, the under signed, declare that the thesis is my original work and has not been presented for a degree in any University.**

**Name** \_\_\_\_\_

**Signature** \_\_\_\_\_

**Date of Submission** \_\_\_\_\_



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