

## APPENDIX

### QUESTIONNAIRE

Questionnaire No. \_\_\_\_\_.

Farm name: \_\_\_\_\_ Phone number: \_\_\_\_\_.

Farm address: \_\_\_\_\_.

Responsible veterinarian: \_\_\_\_\_.

#### General information

##### 1) Cattle population of the farm at day of visit

Total number of cattle \_\_\_\_\_,

no. adult cattle (older than 15 month) \_\_\_\_\_, no. lactating

cows \_\_\_\_\_, no. calves \_\_\_\_\_, no. heifers \_\_\_\_\_,

cattle population of the farm 1 year ago \_\_\_\_\_

no. cows culled during the last year \_\_\_\_\_. average age of cows culled?

\_\_\_\_\_

##### 2) How many tons of milk was produced in your farm last year? \_\_\_\_\_

##### 3) How much milk was produced by one cow in last year (average)? \_\_\_\_\_

##### 4) How many SCC was in tank milk in last year (average)? \_\_\_\_\_

## Administration &amp; Management

5) Are there other animals raised on the farm or have access to your farm?

☐ Yes (please specify the species \_\_\_\_\_) ☐ No

6) Are there facilities to prevent rodents or birds accessing to the barn?

☐ Yes ☐ No

If YES, which facilities or mechanisms? \_\_\_\_\_

7) Before entering your farm, do visitors or vehicles undergo any disinfection?

☐ Yes ☐ No

If YES, how? \_\_\_\_\_

8) How do you replace the cows?

☐ Buying-in ☐ Calves in your farm ☐ Both

9) Do you use vaccine for preventing *E. coli* in your farm?

☐ Yes ☐ No

If YES, what is the vaccine regime? \_\_\_\_\_

10) What are the major factors for your decision to cull cows?

☐ Disease ☐ decreasing of milk productivity ☐ decreasing of  
reproductivity ☐ age ☐ others (please specify) \_\_\_\_\_

Do you use waste milk to feed calves?

☐ Yes ☐ No

If yes, why?

☐ Save money ☐ convenience ☐ others

## Disease control and use of antimicrobials

11) What criteria lead to your decision to send milk samples for bacteriological testing? (Multiple choice)

- ☐ Post calving
- ☐ High SCC
- ☐ Before drying-off
- ☐ Abnormal secreta
- ☐ Success control following mastitis treatment
- ☐ Clinical mastitis
- ☐ Others (please specify) \_\_\_\_\_

12) Which antibiotics did you use most frequently during last year? For which indication?

| Type of antibiotic used | Indication/ reason for use | How often used | Where you get it from | Remarks |
|-------------------------|----------------------------|----------------|-----------------------|---------|
|                         |                            |                |                       |         |
|                         |                            |                |                       |         |
|                         |                            |                |                       |         |

13) What were the decision criteria for the use of antibacterial in the treatment of mastitis?

- ☐ High SSC in single cows
- ☐ Visible alterations of the milk only
- ☐ General condition affected
- ☐ Others (please specify) \_\_\_\_\_

14) How do you manage the cows when treated with antimicrobials?

- ☐ Treated cows were separated from the group
- ☐ Treated cows remain in their group
- ☐ Both options were applied
- ☐ Others method(s)? Please specify \_\_\_\_\_

15) For how long do you use the antibacterial during treating cows?

- ☐ 1-2 days
- ☐ 3-4 days
- ☐ More than 4 days
- ☐ Others (please specify) \_\_\_\_\_

16) Do you rotate in the use of antimicrobials when treating a disease?

- ☐ Yes ☐ No

What are your reasons? \_\_\_\_\_

17) Does the treatment continue until the milk is not showing visible alterations anymore?

- ☐ Yes ☐ No

If NO, why? \_\_\_\_\_

18) Do you record the treatment when using antibacterial?

- ☐ Yes ☐ No

If YES, how to record? \_\_\_\_\_

19) How do you treat the disease in dried-off cows?

- ☐ All quarters ☐ Diseased quarters only

20) Did the antimicrobial agents or teat sealants you used work to prevent disease during drying off?

☐ Yes ☐ No

If YES, which antimicrobial were used (please specify the name)?

\_\_\_\_\_

21) After using antimicrobials in cows, how do you treat the milk?

☐ Feed to calves ☐ Discard

☐ Others, please specify: \_\_\_\_\_

22) Do you use slow-release preparations of antibiotics for cows at drying off?

☐ Yes ☐ No

If YES, please specify \_\_\_\_\_

23) How often does lameness happen in your farm?

☐ Never ☐ Sometimes ☐ Frequent

24) How often were antimicrobials used to treat lameness in your farm?

☐ Never ☐ Sometimes ☐ Frequent

Please specify the name of the antimicrobial used: \_\_\_\_\_

25) How often did metritis happen in your farm?

☐ Never ☐ Sometimes ☐ Frequent

26) How often were antimicrobials used to treat metritis in your farm?

☐ Never ☐ Sometimes ☐ Frequent

Please specify the name of the antimicrobial used: \_\_\_\_\_

27) How often did dystocia happen in your farm?

☐ Never ☐ Sometimes ☐ Frequent

28) How often were antimicrobials used to treat dystocia in your farm?

☐ Never ☐ Sometimes ☐ Frequent

Please specify the name of the antimicrobial used:

\_\_\_\_\_

29) How often did surgery happen in your farm?

☐ Never ☐ Sometimes ☐ Frequent

30) How often were antimicrobials used during surgery time or recover time (around 7 days) in your farm?

☐ Never ☐ Sometimes ☐ Frequent

Please specify the name of the antimicrobial used:

\_\_\_\_\_

31) How often did cows' diarrhea happen in your farm?

☐ Never ☐ Sometimes ☐ Frequent

32) How often did calves diarrhea happen in your farm?

☐ Never ☐ Sometimes ☐ Frequent

33) How often were antimicrobials used to treat diarrhea in your farm?

☐ Never ☐ Sometimes ☐ Frequent

Please specify the name of the antimicrobial used:

\_\_\_\_\_

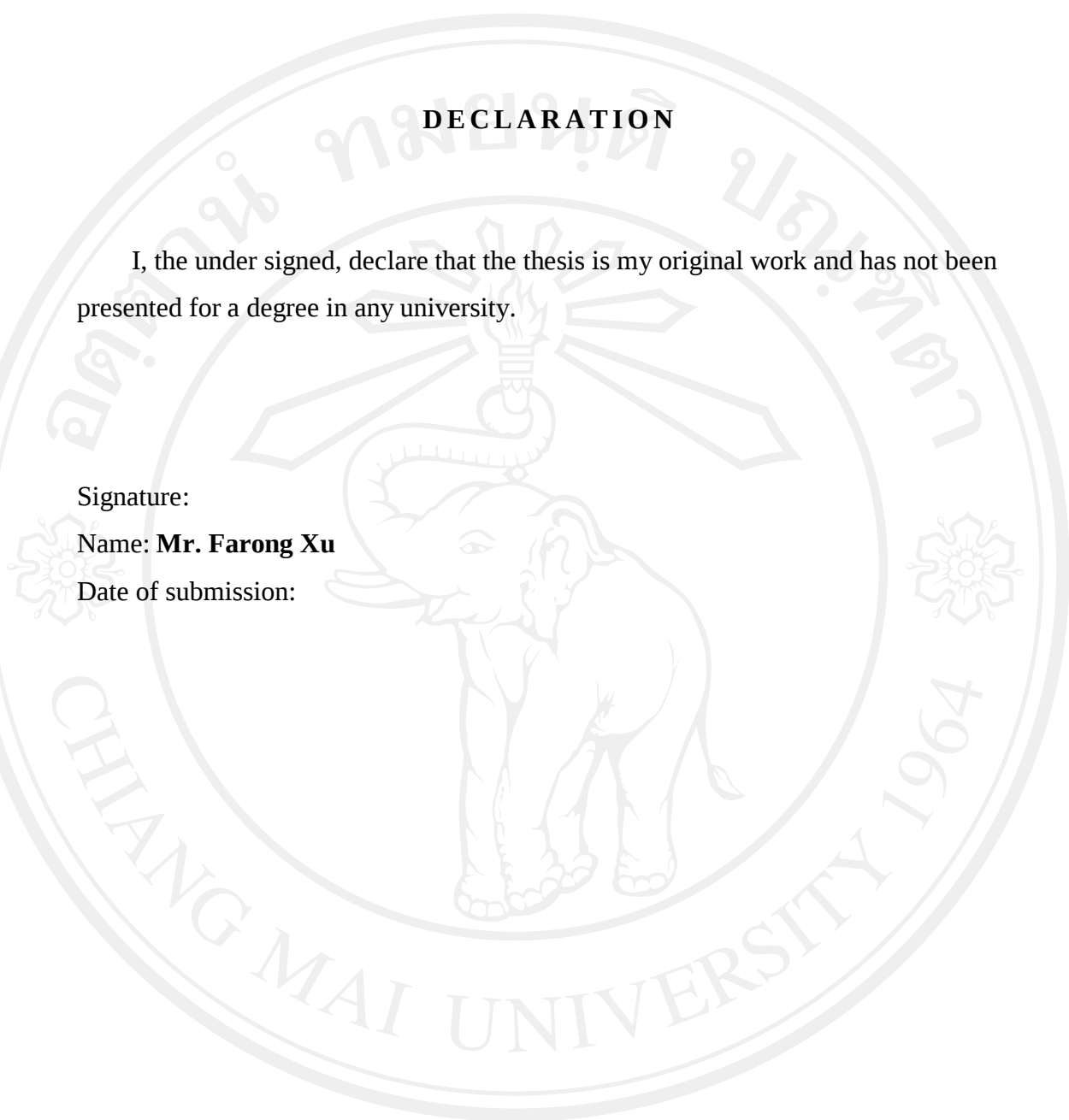
## DECLARATION

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

Signature:

Name: **Mr. Farong Xu**

Date of submission:



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### **Publications**

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