**Supplementary Material S1.**

**Questionnaire for investigating FMD outbreak in farms**

* **For the dairy farm**

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_ record ID\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Farmer name\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Address\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Telephone\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Population in the farm on the day before the outbreak

- The number of milking cow \_\_\_\_\_\_\_\_\_\_\_

- The number of dry cow \_\_\_\_\_\_\_\_\_\_\_

- The number of heifer \_\_\_\_\_\_\_\_\_\_\_

- The number of calf ≤ 6 month old \_\_\_\_\_\_\_\_\_\_\_

- The number of bull \_\_\_\_\_\_\_\_\_\_\_

2. Did your farm affected by FMD outbreak between 2015 and 2016? □ Yes □ No

If yes, please answer the following questions:

3. The outbreak duration

- Which date did the first animals show FMD clinical signs? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Which date did the last animals stop showing FMD clinical signs? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Mortality and morbidity

- The number of sick milking cow \_\_\_\_\_\_\_\_\_\_\_ The number of dead milking cow \_\_\_\_\_\_\_\_\_\_\_

- The number of sick dry cow \_\_\_\_\_\_\_\_\_\_\_ The number of dead dry cow\_\_\_\_\_\_\_\_\_\_\_

- The number of sick heifer \_\_\_\_\_\_\_\_\_\_\_ The number of dead heifer \_\_\_\_\_\_\_\_\_\_\_

- The number of sick calf \_\_\_\_\_\_\_\_\_\_\_ The number of dead calf \_\_\_\_\_\_\_\_\_\_\_

- The number of sick bull \_\_\_\_\_\_\_\_\_\_\_ The number of dead bull \_\_\_\_\_\_\_\_\_\_\_

5. Vaccination practices

- How often did you do the FMD vaccination in the farm? \_\_\_\_\_\_\_\_\_ times/year

- Which type of vaccination did you use? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Who was the vaccinator? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* **For the beef farm**

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_ record ID\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Farmer name\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Address\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Telephone\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Population in the farm

- The number of adult cow \_\_\_\_\_\_\_\_\_\_\_

- The number of calf ≤ 6 month old \_\_\_\_\_\_\_\_\_\_\_

2. Did your farm affected by FMD outbreak between 2015 and 2016? □ Yes □ No

If yes, please answer the following questions:

3. The outbreak duration

- Which date did the first animals show FMD clinical signs? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Which date did the last animals stop showing FMD clinical signs? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Mortality and morbidity

- The number of sick adult cow \_\_\_\_\_\_\_\_\_\_\_ The number of dead adult cow \_\_\_\_\_\_\_\_\_\_\_

- The number of sick calf \_\_\_\_\_\_\_\_\_\_\_ The number of dead calf\_\_\_\_\_\_\_\_\_\_\_

5. Vaccination practices

- How often did you do the FMD vaccination in the farm? \_\_\_\_\_\_\_\_\_ times/year

- Which type of vaccination did you use? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Who was the vaccinator? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* **For the pig farm**

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_ record ID\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Farmer name\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Address\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Telephone\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Population in the farm

- The number of fattening pig \_\_\_\_\_\_\_\_\_\_\_

- The number of sow\_\_\_\_\_\_\_\_\_\_\_

- The number of young pig (piglet and weaner) \_\_\_\_\_\_\_\_\_\_\_

2. Did your farm affected by FMD outbreak between 2015 and 2016? □ Yes □ No

If yes, please answer the following questions:

3. The outbreak duration

- Which date did the first animals show FMD clinical signs? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Which date did the last animals stop showing FMD clinical signs? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Mortality and morbidity

- The number of sick fattening pig \_\_\_\_\_\_\_\_\_\_\_ The number of dead fattening pig \_\_\_\_\_\_\_\_\_\_\_

- The number of sick sow \_\_\_\_\_\_\_\_\_\_\_ The number of dead sow\_\_\_\_\_\_\_\_\_\_\_

- The number of sick young pig \_\_\_\_\_\_\_\_\_\_\_ The number of dead young pig \_\_\_\_\_\_\_\_\_\_\_

5. Vaccination practices

- How often did you do the FMD vaccination in the farm? \_\_\_\_\_\_\_\_\_ times/year

- Which type of vaccination did you use? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Who was the vaccinator? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Questionnaire for estimating the FMD economic impact on dairy farms**

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_ record ID\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Farmer name\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Telephone\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* The impact on milk production

1. number of milking cow \_\_\_\_\_\_\_\_\_\_\_\_\_\_ head

2. Average milk yield per cow per day before the outbreak \_\_\_\_\_\_\_\_\_\_\_\_\_\_ kg/ day

3. Average milk yield per cow per day after the outbreak \_\_\_\_\_\_\_\_\_\_\_\_\_\_ kg/ day

4. Outbreak duration \_\_\_\_\_\_\_\_\_\_\_\_\_\_ day

5. The milk price per kg \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Thai Baht/ kg

6. Did you stop selling milk during the outbreak? □ Yes □ No

6.1 If yes, how many day did you stop selling milk? \_\_\_\_\_\_\_\_\_\_\_\_\_ day

* The impact on other costs

7. Did you use more disinfectant during the outbreak? □ Yes □ No

7.1 If yes, how much was the disinfectant cost? \_\_\_\_\_\_\_\_\_\_\_ Thai Baht

8. Did you use the veterinary service for treating the sick animals during the outbreak?

□ Yes □ No

8.1 If yes, how many time the veterinarian visit the farms during the outbreak? \_\_\_\_\_\_

9. Did you need to work longer or hire extra labour during the outbreak? □ Yes □ No

9.1 If yeas, how many hour per day did you work longer or hire the extra labour?

\_\_\_\_\_\_\_ hour/day