

QUANG NGAI RURAL DEVELOPMENT PROGRAM (RUDEP) - PHASE 2

Report on Commune Paravet Competency and Skills Profile



VIETNAM-AUSTRALIA

Prepared for

AusAID

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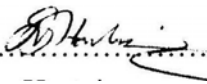
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Acronyms

| | |
|-------|--------------------------------------|
| SDAH | Sub-Department of Animal Health |
| DVS | District Veterinary Station |
| RUDEP | Quang Ngai Rural Development Program |
| CAHC | Commune Animal Health Committee |
| HH | Households |

1 Objectives

Following the workshop on April 29, 2004 with some initial findings, a 3-day workshop has been conducted with the participation of nearly all staff of Provincial and District Sub-Department of Animal Health (SDAH) in Quang Ngai province to discuss and identify theoretic knowledge and skills required for a commune paravet and then to:

- Finalize the Commune paravet competency and skills profile.
- Identify the content and practical methods for conducting assessment of the paravet competency knowledge and skills.

2 Participants

- 38 representatives of Provincial SDAH and all 12 District Veterinary Stations (DVS) were invited to the workshop (*list in Table 1*):
 - Provincial SDAH: 4 (Director, Vice-Director, Head of Techniques Department and a member of the staff).
 - Districts: 15 heads and 19 members of the staff of DVSS, town and Quarantine Station.
- RUDEP: Mr. Bede Evans, Mr. Pham Ngoc Huy and Ms. Tran Thi Le Tuyen.
- Animal Health Training Specialist: Mr. Ta Ngoc Sinh.

3 Organization and Implementation

The workshop was held at the office of Quang Ngai SDAH from 20 to 22 December, 2004 (*see Table 2*).

After a brief introduction by the RUDEP representative (Mr. Bede) about the objectives of the workshop, the significance of RUDEP capacity building profiles was presented by the Capacity Building Officer (Ms. Tuyen).

The workshop was chaired by the Animal Health Training Specialist (Mr. Sinh) focused on the following 2 contents.

3.1 The Commune Paravet Competency and Skills Profile

First, some initial findings through the last workshop (on April 29, 2004) and the draft Commune paravet competency and skills profile were presented by the Animal Health Training Specialist. To collect as many different opinions as possible, all participants were then divided into 4 small groups to discuss and identify knowledge and skills required for a commune paravet:

- Group 1: Provincial SDAH and Town Veterinary Station (9 people).
- Group 2: Lowland districts (Binh Son, Son Tinh and Tu Nghia - 8 people).
- Group 3: Lowland districts (Nghia Hanh, Mo Duc and Duc Pho - 8 people).

- Group 4: Upland districts (Tra Bong, Tay Tra, Son Ha, Son Tay, Minh Long, Ba To, Ly Son and Sa Huynh Quarantine Station - 10 people).

Following the groups' presentations, a plenary section was carried out to agree on the content of the profile.

3.2 Assessment of the Paravet Competency Knowledge and Skills

To find out content and methods for conducting assessment of the paravet theoretic knowledge and practical skills, the following activities were conducted.

3.2.1 Assessment of Paravet Theoretic Knowledge

- A draft questionnaire, including 20 questions covering main issues of the completed profiles, was presented by the Animal Health Training Specialist and delivered to participants for discussion.
- An answer-sheet for each question was then delivered to participants to discuss and agree on the method of assessment of paravet theoretic knowledge.

3.2.2 Assessment of Paravet Practical Skills

- Some practical and feasible skills required for a commune paravet were suggested by the Animal Health Training Specialist for discussion.
- Some specific skills with the requirement of materials (including colour pictures of symptoms and lesions, antibiotics, vaccines, antiseptics, syringe and needles, thermometer, etc), eventualities and the way to conduct assessment for each skill, were provided by the Animal Health Training Specialist for discussion. Finally, the content and methods for conducting assessment of the paravet practical skills were agreed by all participants.

4 Result

4.1 Finalise the Commune Paravet Competency and Skills Profile

All participants who are representatives of DVSs and Provincial SDAH actively participated in discussion. Particularly the participation of both the Director and the Vice-Director of SDAH throughout the workshop helped a lot in finalizing the profile.

Below are some main issues of the completed profile:

- The main roles and responsibilities required for a commune paravet.
- The general requirements of a commune paravet.
- The basic knowledge of veterinary required for a commune paravet.
- The required skills for paravets to deal with poultry diseases and some specific diseases that they have to know for diagnosing, preventing and/or treating.

- The required skills for paravets to deal with pig diseases and some specific diseases that they have to know for diagnosing, preventing and/or treating.
- The required skills for paravets to deal with cattle/buffalo diseases and some specific diseases that they have to know for diagnosing, preventing and/or treating.
- The required skills for paravets to deal with goat diseases and some specific diseases that they have to know for diagnosing, preventing and/or treating.
- Other skills a paravet should possess.

(For detailed information, see the profile on Table 3)

4.2 Identify the Content and Practical Methods for Conducting Assessment of the Paravet Competency Knowledge and Skills

All participants actively participated in the discussion and agreed

4.2.1 Assessment of Paravet Theoretic Knowledge:

Contents:

- Identification of 3 kinds of germs causing diseases for animals: bacteria, viruses and parasites
- Understanding of “Incubation period”
- Disinfection of veterinary equipment
- Disinfection of stables
- Disinfection of paravets’ hands/shoes
- Purpose of vaccination
- Storage, transportation and usage of vaccines
- Purpose, principle and duration of using antibiotics
- Knowledge of common treatment medicines (antibiotics, parasiticides)
- Normal body temperature of pig, piglet, cattle, buffalo
- Examination technique
- Typical clinical signs and lesions of Hog Cholera (in pig)
- Typical characteristics, clinical signs and lesions of Newcastle disease (in chicken)
- Typical characteristics, clinical signs and treatment medicines of Trypanosomiasis (in cattle/buffalo)
- Common causes of diarrhoea in piglets
- Purpose of the Iron injection for piglets

Assessment method:

The above content is expressed in a 20-question questionnaire (*see Annex 1*) which will be answered separately by each paravet. The time to complete this questionnaire is around 1 hour.

The questionnaires will then be collected and marked. Each question is given 1 point and the total 20 will then be converted into scale 10 (*see Annex 2 for the detailed marking method*).

Paravets' theoretic knowledge is classified into 4 levels as following:

| Point | Evaluation |
|-----------|--------------|
| 0 – 3.3 | Critical |
| 3.4 – 6.7 | Concerned |
| 6.8 – 9.5 | Consolidated |
| 9.6 – 10 | Competent |

4.2.2 Assessment of Paravet Practical Skills

Skills:

- Skill of collecting information about the sick animal from the owner
- Skill of using thermometer
- Skill of using syringe and needles
- Skill of calculating, diluting and using antiseptic
- Knowledge of some live and inactive vaccines (diluting, using, storing and transporting)
- Knowledge of some common used medicines in treatment
- Skill of giving medicines in powder and tablet by mouth to animals
- Knowledge of some important chicken diseases (by colour pictures)
- Knowledge of some important pig diseases (by colour pictures)
- Knowledge of some important cattle/buffalo diseases (by colour pictures)
- Skill of writing reports
- Skill of operating chicken, duck

Assessment Method:

The paravets will be evaluated based on their competency in performing the skills. 12 skills will be evaluated, among them, 8 will be given 1.5 points and 4 will be given 2 points according to their importance. The total 20 points will then be converted into scale 10 (*see Annex 3*).

Paravets' practical skill is classified into 4 levels as following:

| Point | Evaluation |
|-----------|--------------|
| 0 – 3.3 | Critical |
| 3.4 – 6.7 | Concerned |
| 6.8 – 9.5 | Consolidated |
| 9.6 – 10 | Competent |

5 Recommendations

- Based on the result of the workshop, SDAH supported by RUDEP should conduct the assessment on both theoretic knowledge and practical skills of the paravets in some RUDEP communes to learn experiences. The assessment must be conducted seriously to find out the real paravet training needs and then expanded in all RUDEP communes.
- Although it is completed, this profile is dynamic and some items could be updated through time according to the development of animal husbandry and the epidemic situation in Quang Ngai.
- Some following activities should be addressed:
 - An appropriate training curricula for paravets should be designed to satisfy the training needs.
 - Some training courses on paravet training methodologies for trainers should be conducted.
 - New and strengthening training courses should be carried out depending on the competency of the paravets of each commune.

Table 1: List of participants at the workshop

20-22 December, 2004

| No. | Full name | Agency | Position |
|-----|------------------|-----------------------------|---------------|
| 1 | Võ Văn Tân | SDAH | Director |
| 2 | Trương Đình Toàn | SDAH | Vice-Director |
| 3 | Nguyễn Văn Thuận | Techniques Department, SDAH | Head |
| 4 | Lê Thị Thanh Lâm | Techniques Department, SDAH | Member |
| 5 | Nguyễn Đình Huy | Personnel Department, SDAH | Head |
| 6 | Nguyễn Xuân | Binh Son DVS | Member |
| 7 | Nguyễn Văn Hón | Binh Son DVS | Member |
| 8 | Nguyễn Phụng | Tra Bong DVS | Head |
| 9 | Phạm Quang Vinh | Tra Bong DVS | Member |
| 10 | Đào Khắc Dũng | Tay Tra DVS | Head |
| 11 | Nguyễn Thị Liên | Son Tinh DVS | Head |
| 12 | Lê Thị Xuân Lan | Son Tinh DVS | Member |
| 13 | Lê Văn Dương | Son Tinh DVS | Member |

| No. | Full name | Agency | Position |
|------------|---------------------|------------------------------------|-----------------|
| 14 | Nguyễn Nhíp | Son Ha DVS | Head |
| 15 | Nguyễn Văn Thảo | Son Ha DVS | Head |
| 16 | Trần Quý | Son Tay DVS | Head |
| 17 | Nguyễn Văn Tấn | Quang Ngai Town Veterinary Station | Head |
| 18 | Nguyễn Đức Tú | Quang Ngai Town Veterinary Station | Member |
| 19 | Nguyễn Quang Ba | Quang Ngai Town Veterinary Station | Member |
| 20 | Đỗ Thị Xiêm | Quang Ngai Town Veterinary Station | Member |
| 21 | Võ Thân | Tu Nghia DVS | Head |
| 22 | Nguyễn Hai | Tu Nghia DVS | Member |
| 23 | Huỳnh Đê | Tu Nghia DVS | Member |
| 24 | Trương Thị Nhu | Nghia Hanh DVS | Head |
| 25 | Võ Văn Ngọc | Nghia Hanh DVS | Member |
| 26 | Nguyễn Thị Minh Tâm | Nghia Hanh DVS | Member |
| 27 | Nguyễn Minh Thứ | Mo Duc DVS | Head |
| 28 | Nguyễn Văn Hải | Mo Duc DVS | Member |
| 29 | Phạm Anh Tuấn | Mo Duc DVS | Member |
| 30 | Phan Huy Anh | Mình Long DVS | Head |
| 31 | Võ Thị Hồng Loan | Mình Long DVS | Member |
| 32 | Phạm Văn Thu | Ba To DVS | Head |
| 33 | Ngô Hữu Tường | Ba To DVS | Member |
| 34 | Nguyễn Văn Sáu | Duc Pho DVS | Head |
| 35 | Nguyễn Văn Ba | Duc Pho DVS | Member |
| 36 | Nguyễn Thị Loan | Duc Pho DVS | Member |
| 37 | Trương Đình Nho | Ly Son DVS | Head |
| 38 | Nguyễn Đình Tuấn | Sa Huynh Quarantine Station | Head |

Table 2: Agenda for the workshop on Commune Paravet Competency and Skills Profile

20-22 December, 2004

| Time | Content | Persons in charge |
|---------------|---|------------------------------|
| 20/12 | | |
| 08.00 – 08.15 | Introduction | Mr. Bede |
| 08.15 – 08.30 | Some activities conducted by SDAH in cooperation with RUDEP | Mr. Tân |
| 08.30 – 08.50 | Significance of the objective of RUDEP capacity building profiles | Ms. Tuyền |
| 08.50 – 09.10 | Some findings through the workshop conducted on April 29, 2004 | Mr. Sinh |
| 09.10 – 09.30 | Break | |
| 09.30 – 11.30 | Discuss on the profile content | All participants |
| 13.30 – 14.30 | Group presentation | All participants |
| 14.30 – 15.00 | Plenary discussion | All participants |
| 15.00 – 15.15 | Break | |
| 15.15 – 16.30 | Plenary discussion (cont.) | All participants |
| 21/12 | | |
| 08.00 – 08.30 | Draft content to evaluate paravet theoretic knowledge | Mr. Sinh |
| 08.30 – 09.00 | Group discussion | All participants |
| 09.00 – 09.30 | Group presentation | All participants |
| 09.30 – 09.45 | Break | |
| 09.45 – 10.30 | Plenary discussion | All participants |
| 10.30 – 11.30 | Method to evaluate paravets' theoretic knowledge | All participants |
| 13.30 – 13.50 | Plenary discussion on feasible practical skills | All participants |
| 13.50 – 14.10 | Draft content to evaluate paravet practical skills | Mr. Sinh |
| 14.10 – 15.00 | Plenary discussion | All participants |
| 15.00 – 15.15 | Break | |
| 15.15 – 16.05 | Assessment method | All participants |
| 16.05 – 16.30 | Review workshop | Mr. Sinh |
| 22/12 | | |
| 08.00 – 08.30 | Introduce some co-operation activities in the future between RUDEP and SDAH | Mr. Bede |
| 08.30 – 09.45 | Group discussion | Mr. Sinh, Ms. Tuyền, Mr. Huy |
| 09.30 – 09.45 | Break | |
| 09.45 – 10.05 | Group discussion | Mr. Sinh, Ms. Tuyền, Mr. Huy |
| 10.05 – 10.55 | Group presentations | All participants |
| 10.55 – 11.15 | Plenary discussion | Ms. Tuyền |
| 11.15 – 11.30 | Closing | Mr. Bede |

Table 3: The Commune Paravet Competency and Skills Profile

| Roles & responsibilities | General requirements | Basic knowledge of veterinary | Poultry diseases | | Pig diseases | | Cattle/buffalo diseases | | Goat diseases | Other skills |
|--|--|----------------------------------|---|--|---|--|---|---|---|---|
| Contact directly HH, diagnosis and treatment of sick livestock | Have professional ethics | Causes of disease in animal | Diagnosis, prevention and treatment of diseases: (1) Poultry Pasteurellosis, (2) Poultry Salmonellosis | Skill of observation sick poultry | Diagnosis, prevention and treatment of diseases: (1) Swine Pasteurellosis, (2) Swine Salmonellosis, (3) Erysipelas, (4) Leptospirosis, (5) Diarrhea in piglets by E. coli, (6) Palsy in sow | Restraining technique for pig | Diagnosis, prevention and treatment of disease: (1) Hemorrhagic septicemia | Restraining technique for cattle/buffalo | Diagnosis, prevention and treatment of disease: (1) Diarrhea in goats, (2) Dermatophyte | Castration |
| Advise for local authorities & take part directly in vaccination campaigns and control epidemics in animal | Understand the Law of Veterinary, the Law of animal breeding | Prophylactic measures for animal | Diagnosis, prevention of diseases: (3) Newcastle, (4) Gumboro, (5) Avian Influenza, (6) Fowl pox, (7) Duck plague, (8) Hepatitis by virus in duck | Operating to find out lesions in poultry | Diagnosis, prevention of diseases: (7) Hog Cholera, (8) Foot and Mouth Disease, ((9) Enzootic pneumonia, (10) Swollen head in piglets, (11) Syndrome of diarrhea in piglets | Operating to find out lesions in pig | Diagnosis, prevention of diseases: (2) Foot and Mouth Disease, (3) Bloating, (4) Dyspepsia, (5) Ulcerated skin and curly ear, (6) Diarrhea caused by enteritis in cattle/buffalo, (7) Cyanide poisoning | Examining cattle/buffalo | Diagnosis, prevention of diseases: (3) Foot and Mouth Disease, (4) Ulcerated mouth | Artificial insemination for pig, cattle |
| Take part in control slaughtering, veterinary hygiene under guiding from SDAH | | Skill diagnosing animal diseases | | Skill of giving medicine to poultry through mouth, intramuscular injection, subcutaneous injection | | Skill of giving medicine to pig through mouth, intramuscular injection, subcutaneous injection | | Skill of giving medicine to cattle/buffalo through mouth, intramuscular injection, subcutaneous injection | | Treatment of wounds, abscess |

| Roles & responsibilities | General requirements | Basic knowledge of veterinary | Poultry diseases | Pig diseases | Cattle/buffalo diseases | Goat diseases | Other skills |
|---|---|--|---|---|---|---------------|---|
| Propagandize, instruct farmers re animal husbandry, veterinary | Skill mobilizing and convincing farmers | Properties, store, transfer and use some kinds of vaccines | | | | | Delivering technique for pig, cattle |
| Report epidemic diseases to village, commune authorities, District Veterinary Station | Skill writing report | Technique of disinfection and septic for veterinary tools | Prevention of parasitic diseases in poultry | Prevention of parasitic diseases in pig | Prevention of parasitic diseases in the blood, Ascarid in calves, Fascioliasis in cattle/buffalo, Mange | | Treatment of reaction caused by vaccination |
| | | Use of thermometer, syringe and needles | | | | | |
| | | Estimate animal body weight | | | | | |
| | | Dissolving and use of antiseptics | | | | | |
| | | Medical properties, principles for using of some kinds of medicines in treatment | | | | | |

Annex 1

Questionnaire for Assessment of Paravet Theoretical Knowledge

Annex 1: Questionnaire for Assessment of Paravet Theoretical Knowledge

Quang Ngai, / / 200...

Name:

.....

.....

Commune:

.....

.....

District:

.....

.....

1. Please write for each of the following disease if it is caused by parasites, virus or bacteria.

| | |
|----------------------------|--|
| -Newcastle Disease | |
| -Avian Influenza | |
| -Gumboro | |
| -Pasteurellosis in poultry | |
| -Duck plague | |
| -Hog Cholera | |
| -Swine Salmonellosis | |
| -Erysipelas | |
| -Pasteurellosis in pig | |
| -Taenia in pig | |

| | |
|----------------------------------|--|
| -Leptospirosis | |
| -Diarrhoea in piglets by E. coli | |
| -Enzootic pneumonia | |
| -Palsy in sow | |
| -Foot and Mouth Disease | |
| -Hemorrhagic septicemia | |
| -Trypanosomiasis | |
| -Fascioliasis in cattle/buffalo | |
| -Ascarid in calves | |
| -Anthrax | |

2. What are the common causes of diarrhoea in piglets?

- Food for
sow:
.....
.....
- Food for
piglet:
.....
.....
- Drinking
water:
.....
- Stable:
.....
.....
.....
- Weather:
.....
.....
.....

3. What is meant by "Incubation period"? In "Incubation period", what is the expression of the animal?

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.....

4. How to disinfect veterinary equipments (pin, scissor, syringe and needles)? (*tick the right answers as many as required*)

- Wash by clean water
- Boil 30 minutes
- Boil 15 minutes
- Disinfect with Formol
- Dip in boiling water

5. How to disinfect a stable? (*tick the right answers as many as required*)

- Apply concentrated lime solution
- Spray and wash with clean water with high pressure
- Use Chloramin 2%
- Use Formol 2-5%
- Use BKA 1-2%

6. What is the purpose of vaccination? (*tick the right answers as many as required*)

- To treat diseases
- To prevent diseases
- To stimulate growth in livestock

7. How to store and transport vaccines correctly? (*tick the right answers as many as required*)

- Store the vaccine in the refrigerator at 2-8° C
- Store the vaccine in the freezer compartment of the refrigerator
- Transport the vaccine in a cooling container with ice
- Transport the vaccine in a cooling container without ice
- Keep it on a shelf together with drugs

8. Should the syringe and the needle be disinfected with alcohol before using them for vaccination?

Yes

No

Why?

.....

.....
.....
.....
.....
.....
.....
.....

9. Write up the normal body temperature of following animals:

- Buffalo:
- Cattle:
- Pig:
- Piglet:

5.1.1

10. In order to be able to make a good diagnosis of a diseased animal, we need to:
(tick the right answers as many as required)

- Ask the farmers questions about the diseased animal
- Ask the value of the animal
- Observe the animal
- Take the body temperature of the animal
- Inject it with antibiotics immediately

11. a) List the clinical signs of Hog Cholera

(tick the right answers as many as required)

- Breathe normally
- Haemorrhage like "mosquito bites" on the thin skin
- Swollen fauces and face
- Diarrhoea with watery and fetid faeces

b) List the lesions of Hog Cholera *(tick the right answers as many as required)*

- Spleen is blue-purple, swollen in the middle, pliable but strong like rubber when being cut
- Circle shaped ulcers at the ileum- caecum valve

12. a) List the characteristics and clinical signs of Newcastle disease

(tick the right answers as many as required)

- Spread very quickly with high mortality in chicken, duck, swan and goose
- Diarrhoea with green-white faeces
- Breathe very hard
- Swollen head and crest

b) List the lesions of Newcastle disease *(tick the right answers as many as required)*

- Subcutaneous haemorrhage in leg and spaces between toes
- Haemorrhage on holes of pre-ventriculus
- Haemorrhage in intestine with ulcers

13. a) List the characteristics and clinical signs of Trypanosomiasis in cattle/buffalo *(tick the right answers as many as required)*

- Cause by a bacteria
- Progress slowly
- High fever continuously in several days
- The animal is very thin with pale mucous membrane

b) Medicines for treatment *(tick the right answers as many as required)*

- Ampicillin
- Azidin
- Levamisol
- Trypamidium

14. What do you use antibiotics for? *(tick the right answers as many as required)*

- Disease prevention
- Treatment of viral diseases
- Treatment of bacterial diseases
- Treatment of parasitic diseases

15. What is the minimum duration of an antibiotic treatment?

(tick the right answers as many as required)

- 1 day
- 2 days
- 3 days
- 1 week

16. Identify from the following list, drugs that are antibiotics with an "A" and those that are parasiticides with a "P"

| | | | | | |
|------------|--|--------------|--|---------------|--|
| Penicillin | | Analgin | | Tetracyclin | |
| Levamisol | | Streptomycin | | Calmaphos | |
| Dextran-Fe | | Trypamidium | | Dexamethasone | |

17. What is important for the use of antibiotics? *(tick the right answers as many as required)*

- The body weight of the animal
- The age of the animal
- The sex of the animal
- Gradual increase of the dose
- Combination of at least 3 antibiotics

18. What is the purpose of the Iron injection (Dextran Fe) for piglets?

.....

At what age do you usually inject?

.....

19. Why and when are vaccines not effective?

(tick the right answers as many as required)

- Bad storage, transportation
- Expired
- Injection needle is too short for IM injection
- Vaccination has been done during incubation time
- The vaccine dose was not enough
- Wrong sex of the animal

20. True or false? (tick the true answers)

- Prevention is better than cure
- After examining a group of pigs with Hog Cholera it is not necessary to disinfect your hands/shoes before going to another pig farm
- Avian Influenza cannot be cured by antibiotics
- Calves should not be fed colostrum
- Do not let piglets with diarrhoea drink

Annex 2

Answer Sheet for Assessment of Paravet Theoretic Knowledge

Annex 2: Answer Sheet for Assessment of Paravet Theoretic Knowledge

Quang Ngai, / / 200...

Name:

.....

Commune:

.....

District:

.....

1. Please write for each of the following disease if it is caused by parasites, virus or bacteria (1 point)

| | |
|----------------------------|---|
| -Newcastle Disease | V |
| -Avian Influenza | V |
| -Gumboro | V |
| -Pasteurellosis in poultry | B |
| -Duck plague | V |
| -Hog Cholera | V |
| -Swine Salmonellosis | B |
| -Erysipelas | B |
| -Pasteurellosis in pig | B |
| -Taenia in pig | P |

| | |
|----------------------------------|---|
| -Leptospirosis | B |
| -Diarrhoea in piglets by E. coli | B |
| -Enzootic pneumonia | B |
| -Palsy in sow | - |
| -Foot and Mouth Disease | V |
| -Hemorrhagic septicemia | B |
| -Trypanosomiasis | P |
| -Fascioliasis in cattle/buffalo | P |
| -Ascarid in calves | P |
| -Anthrax | B |

Marking direction: 0.1 point for each item; 1 point for all

2. What are the common causes of diarrhoea in piglets?

(1 point)

- Food for sow: *insufficient, unbalanced*
- Food for piglet: *lacks milk, mineral (Fe), suddenly changes*
- Drinking water: *insufficient, dirty*
- Stable: *dirty, wet floor, draught*
- Weather: *too hot, cold, wet*

⌘ Marking direction: 0.2 point for each item; 1 point for all

3. What is meant by "Incubation period"? What does the animal look like in "Incubation period"? *(1 point)*

- *Show the concept of incubation*
- *Affirm that during the incubation period, animal did not show symptoms*

⌘ Marking direction: 0.5 point for each item; 1 point for all

4. How to disinfect veterinary equipments (pin, scissor, syringe and needles)?

(tick the right answers as many as required) (1 point)

- Wash by clean water
- Boil 30 minutes
- Boil 15 minutes
- Disinfect with Formol
- Dip in boiling water

⌘ Marking direction: 1 point for the right tick; minus 0.25 point for each wrong tick

5. How to disinfect a stable? *(tick the right answers as many as required) (1 point)*

- Apply concentrated lime solution
- Spray and wash with clean water with high pressure
- Use Chloramin 2%
- Use Formol 2-5%

- Use BKA 1-2%

✎ Marking direction: 0.25 point for each right tick; minus 0.25 point for the wrong tick

6. What is the purpose of vaccination? (tick the right answers as many as required) (1 point)

- To treat diseases
 To prevent diseases
 To stimulate growth in livestock

✎ Marking direction: 1 point for the right tick; minus 0.25 point for each wrong tick

7. How to store and transport vaccines correctly? (tick the right answers as many as required) (1 point)

- Store the vaccine in the refrigerator at 2-8 °C
 Store the vaccine in the freezer compartment of the refrigerator
 Transport the vaccine in a cooling container with ice
 Transport the vaccine in a cooling container without ice
 Keep it on a shelf together with drugs

✎ Marking direction: 0.5 point for each right tick; minus 0.3 point for each wrong tick

8. Should the syringe and the needles be disinfected with Alcohol before using them for vaccination? (1 point)

Yes No

Why? Alcohol will spoil the vaccine.

✎ Marking direction: 0.3 point for the right tick; 0.7 point for the right explanation; 1 point for all

9. Write up the normal body temperature of following animals: (1 point)

- Buffalo: 38.0 - 38.5 °C
- Cattle: 38.0 - 39.0 °C
- Pig: 38.5 - 39.0 °C
- Piglet: 39.5 - 39.8 °C

✎ Marking direction: 0.25 point for each right answer; 1 point for all

5.1.2

10. In order to be able to make a good diagnosis of a diseased animal, we need to:
(tick the right answers as many as required) (1 point)

- Ask the farmers questions about the diseased animal
- Ask the value of the animal
- Observe the animal
- Take the body temperature of the animal
- Inject it with antibiotics immediately

✎ **Marking direction:** 0.3 point for each right tick; 1 point for all right; minus 0.3 point for each wrong tick

11. a) List the clinical signs of Hog Cholera

(tick the right answers as many as required) (0.5 point)

- Breathe normally
- Haemorrhage like "mosquito bites" on the thin skin
- Swollen fauces and face
- Diarrhoea with watery and fetid faeces

✎ **Marking direction:** 0.25 point for each right tick; minus 0.25 point for each wrong tick

b) List the lesions of Hog Cholera

(tick the right answers as many as required) (0.5 point)

- Spleen is blue-purple, swollen in the middle, pliable but strong like rubber when being cut
- Circle shaped ulcers at the ileum- caecum valve

✎ **Marking direction:** 0.5 point for the right tick; minus 0.5 point for the wrong tick

12. a) List the characteristics and clinical signs of Newcastle disease

(tick the right answers as many as required) (0.5 point)

- Spread very quickly with high mortality in chicken, duck, swan and goose
- Diarrhoea with green-white faeces
- Breathe very hard
- Swollen head and crest

✘ **Marking direction:** 0.25 point for each right tick; minus 0.25 point for each wrong tick

b) List the lesions of Newcastle disease (tick the right answers as many as required) (0.5 point)

- Subcutaneous haemorrhage in leg and spaces between toes
- Haemorrhage on holes of pre-ventriculus
- Haemorrhage in intestine with ulcers

✘ **Marking direction:** 0.25 point for each right tick; minus 0.25 point for the wrong tick

13. a) List the characteristics and clinical signs of Trypanosomiasis in cattle/buffalo (tick the right answers as many as required) (0.5 point)

- Cause by a bacteria
- Progress slowly
- High fever continuously in several days
- The animal is very thin with pale mucous membrane

✘ **Marking direction:** 0.25 point for each right tick; minus 0.25 point for each wrong tick

b) Medicines for treatment (tick the right answers as many as required) (0.5 point)

- Ampicillin
- Azidin
- Levamisol
- Trypamidium

✘ **Marking direction:** 0.25 point for each right tick; minus 0.25 point for each wrong tick

14. What do you use antibiotics for? (tick the right answers as many as required) (1 point)

- Disease prevention
- Treatment of viral diseases
- Treatment of bacterial diseases
- Treatment of parasitic diseases

✘ **Marking direction:** 1 point for the right tick; minus 0.3 point for each wrong tick

15. What is the minimum duration of an antibiotic treatment?
(tick the right answers as many as required) (1 point)

- 1 day
- 2 days
- 3 days
- 1 week

⌘ **Marking direction:** 1 point for the right tick; minus 0.3 point for each wrong tick

16. Identify from the following list, drugs that are antibiotics with an "A" and those that are parasiticides with a "P" (1 point)

| | | | | | |
|------------|---|--------------|---|---------------|---|
| Penicillin | A | Analgin | | Tetracyclin | A |
| Levamisol | P | Streptomycin | A | Calmaphos | |
| Dextran-Fe | | Trypanidium | P | Dexamethasone | |

⌘ **Marking direction:** 0.2 point for each right tick; minus 0.2 point for each wrong tick

17. What is important for the use of antibiotics?
(tick the right answers as many as required) (1 point)

- The body weight of the animal
- The age of the animal
- The sex of the animal
- Gradual increase of the dose
- Combination of at least 3 antibiotics

⌘ **Marking direction:** 0.5 point for each right tick; minus 0.3 point for each wrong tick

18. What is the purpose of the Iron injection (Dextran Fe) for piglets? (1 point)

To prevent the anaemia for piglets.

⌘ **Marking direction:** 0.5 point

At what age do you usually inject? 3 and 10 days of age

⌘ **Marking direction:** 0.5 point

19. Why and when are vaccines not effective?

(tick the right answers as many as required)

(1 point)

- Bad storage, transportation
- Expired
- Injection needle is too short for intramuscular injection
- Vaccination has been done during incubation time
- The vaccine dose was not enough
- Wrong sex of the animal

⌘ Marking direction: 0.2 point for each right tick; minus 0.2 point for the wrong tick

20. True or false? (tick the true answers)

(1 point)

- Prevention is better than cure
- After examining a group of pigs with Hog Cholera it is not necessary to disinfect your hands/shoes before going to another pig farm
- Avian Influenza cannot be cured by antibiotics
- Calves should not be fed colostrum
- Do not let piglets with diarrhoea drink

⌘ Marking direction: 0.5 point for each right tick; minus 0.3 point for the wrong tick

Assessment:

| Point | Evaluation |
|-----------|--------------|
| 0 – 3.3 | Critical |
| 3.4 – 6.7 | Concerned |
| 6.8 – 9.5 | Consolidated |
| 9.6 – 10 | Competent |

Annex 3

Content and Methods for Assessment of Paravet Practical Skills

Annex 3: Content and Methods for Assessment of Paravet Practical Skills

Quang Ngai,...../...../200.....

Name.....

Commune.....

District.....

1. Collecting information about the sick animal from the owner (1.5 points)

- The evaluator gives a situation: a household has a sick flock of chickens, some sick pigs or a sick cattle/buffalo so they ask a paravet for help.
- The evaluator plays the owner role and requests the paravet to provide questions that he/she can use to collect information about the sick animal.

2. Using thermometer (1.5 points)

- Preparation: a thermometer (may set above the normal temperature of the animal)
- Requirement for paravets:
 - Perform the usage of the thermometer (for pig, cattle/buffalo).
 - Read the number on the thermometer scale.
 - The evaluator gives the different temperatures of each type of animals and requests the paravet to answer if it is a fever or not.

3. Using syringe and needles (1.5 points)

- Preparation: a syringe (metal), needles of several sizes, 5 ml ampoule of distilled water, pin.
- Requirement for paravets:
 - Disassemble and then assemble the parts of the syringe. Check for suitable tightness.
 - Take the medicine (replaced by distilled water).
 - Show the intramuscular, subcutaneous injection sites for chicken, pig and cattle/buffalo (if possible, request the paravets to show the injection sites on live animals).
 - Disinfection of syringe and needles.

4. Calculating, diluting and using antiseptic (1.5 points)

- Preparation: a 100 ml bottle of BKA antiseptic, an 8-10 l sprayer, a bucket of water.
- Requirement for paravets:
 - Calculate to dilute 5 l BKA 1%.
 - Perform the dilution and spraying.

✎ May test the paravet knowledge of some kinds of other antiseptics!

5. Some common used medicines in treatment (1.5 points)

- Preparation: Some antibiotics (Penicillin, Streptomycin, Ampicillin, Tylosin...) in both powder and liquid type; some parasiticides (Tayzu, Azidin, Dertil-B...); vitamins, minerals, hydration powder.

- Requirement for paravets:
 - Classify medicines into groups
 - Show main medical properties of specific medicines.
 - The evaluator gives some situations and requests the paravets to answer:
 - How to use right dose of Tayzu (4 g packet) to worm a household's chickens of different ages?
 - How to use right dose of Penicillin (1 million IU bottle) to cure a pig suffered from Erysipelas?
 - How to use right dose of Streptomycin (1 g bottle) to cure a cattle suffered from Hemorrhagic septicemia?
- 6. Knowledge of live and inactive vaccines (1.5 points)**
- Preparation: Some live vaccines (Lasota, Hog Cholera...) and some inactive vaccines (Hemorrhagic septicemia).
 - Requirement for paravets of performing:
 - Dilution: with how much distilled water/ NaCl 0.9%?
 - Usage: eye, nose dropping or intramuscular, subcutaneous injection?
 - Storage and transportation of each type of vaccines.
- 7. Giving medicines through animal's mouth (1.5 points)**
- Preparation: a medicine packet in powder type (Tayzu...) and some tablets (Dertil-B...)
 - Requirement for paravets:
 - Mixing a small amount of medicine in powder into food for chicken/pig.
 - Dissolving medicine in powder into drinking water for chicken.
 - Giving medicines in tablet and liquid type for chicken, pig and cattle/buffalo.
- 8. Knowledge of some important chicken diseases (2 points)**
- Preparation: some colour pictures (20x30 cm) of symptoms and lesions of some important poultry diseases such as Newcastle, Gumboro, Avian Influenza...
 - Requirement for paravets:
 - Comment on the pictures (name of organs? in what diseases?)
 - Can be confused with what diseases? How to distinguish?
- 9. Knowledge of some important pig diseases (2 points)**
- Preparation: some colour pictures (20x30 cm) of symptoms and lesions of some important pig diseases such as Hog Cholera, Swine Salmonellosis, Erysipelas, Swine Pasteurellosis, Leptospirosis, and Ascarid in pig.
 - Requirement for paravets:
 - Comment on the pictures (name of organs? in what diseases?)
 - Can be confused with what diseases? How to distinguish?
- 10. Knowledge of some important cattle/buffalo diseases (2 points)**
- Preparation: some colour pictures (20x30 cm) of symptoms and lesions of some important cattle/buffalo diseases such as Foot and Mouth Disease, Hemorrhagic septicemia, Anthrax...
 - Requirement for paravets:
 - Comment on the pictures (name of organs? in what diseases?)
 - Can be confused with what diseases? How to distinguish?

11. Writing report *(1.5 points)*

- Preparation: some forms of reports (on epidemic diseases, vaccination in the commune)
- Requirement for paravets:
 - Explain some items in the reports.
 - How to collect data (as a paravet/Head of Commune Animal Health Committee)?
 - Fill in the reports.

12. Operating poultry *(2 points)*

- Preparation: a chicken or duck, scissor, scalpel, pin, stray, fresh water.
- Requirement for paravets:
 - Perform the operation.
 - Show the organs.
 - Describe some possible lesions.

Assessment:

| Point | Evaluation |
|--------------|-------------------|
| 0 – 3.3 | Critical |
| 3.4 – 6.7 | Concerned |
| 6.8 – 9.5 | Consolidated |
| 9.6 – 10 | Competent |

Limitations

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