SEPTEMBER 1998

PROTOCOL

BETWEEN THE MINISTRY OF AGRICULTURE OF THE PEOPLE'S REPUBLIC OF CHINA AND THE DEPARTMENT OF AGRICULTURE OF THE UNITED STATES OF AMERICA ON QUARANTINE AND HEALTH REQUIREMENTS FOR SWINE SEMEN TO BE EXPORTED FROM THE UNITED STATES TO CHINA

1. The Animal and Plant Health Inspection Service (APHIS), of the U.S. Department of Agriculture shall be responsible for implementing quarantine procedures for donor boars and their semen, and for issuing health certificates.

1.1 The sample health certificate shall be confirmed by the Administration of Animal and Plant Quarantine of the People's Republic of China in advance; and

1.2 Each health certificate shall consist of one original certificate and two copies, and test results shall be attached; and

1.3 The contents of the health certificate shall be typewritten (handwritten reports shall be invalid); and

1.4 The health certificate must be validated with the official stamp of the United States Department of Agriculture (USDA) and the signature of an authorized veterinary officer; and

1.5 The certificate shall accompany the consignment.

2. After having confirmed that a Chinese importer has received the import permit issued by the Administration of Animal and Plant Quarantine of the People's Republic of China (CAPQ), APHIS may start to implement the quarantine procedures of the donor boars and their semen.

2.1 Each import permit may allow for the importation of only one shipment of swine semen.

3. CAPQ shall send veterinarian(s) to the artificial insemination (AI) centers for production of export semen and related laboratories to cooperate with USDA veterinarians in making the inspection and quarantine.

or:

CAPQ may qualify the AI centers and register those that satisfy the requirements mentioned in this protocol. The registered AI centers may export the semen in a certain period.

4. The United States of America officially confirms that it is free from Hog Cholera, Foot- and-Mouth Disease, African Swine Fever, Infectious Swine Vesicular Disease, Teschen Disease (contagious Encephalomyelitis), and Porcine Epizootic Diarrhea. 4.1 Whenever any outbreak of diseases in paragraph 4 occurs in the United States, APHIS shall employ the following actions immediately:

4.1.1 Notify CAPQ with the details of the outbreak within 24 hours, including the name of the disease, name and address of the farm in which the outbreak occurs, number and species of the animals involved in the outbreak, and the control measures that have been taken by APHIS; and

4.1.2 Refrain from exporting swine semen to China.

5. The donor boar shall have been raised in the United States for at least for one (1) year and never used for natural service. The boar shall have been resident in an AI center for at least 6 months. From the date of the first collection through the date of shipment, the boar shall be raised in the same AI center.

6. The AI center in which the donor boar is resident must satisfy the following requirements:

6.1 The AI center is set up by approval of the USDA.

6.2 The AI center is under the supervision of a USDA accredited veterinarian(s), being responsible for the production of the semen and the supervision of the daily management concerning the health of boar/teasers and the sanitary condition of the semen.

6.3 The AI center must have been free of Aujeszky's disease. If Aujeszky's disease has occurred on the AI center, all pigs must have been killed and the facilities disinfected with an effective disinfectant. All new pigs must originate from farms that are free of Aujeszky's Disease. There has been no occurrence of Aujeszky's disease in the AI center during the last two (2) years.

6.4 For the last three (3) years, the AI center shall have been free from Tuberculosis. For the last three (3) years, the AI center shall have been free from Brucellosis, and for the last 12 months the AI Center shall have been free from Treponema hyodysenteriae based on both clinical examination and regular testing at intervals of 6 months. Within 60 days prior to the first collection, the donor shall be treated to prevent Treponema hyodysenteriae for two (2) weeks.

6.5 For the last 12 months, the AI centers have been free from contagious swine pleuropneumonia, hemagglutinating encephalomyelitis, and transmissible gastroenteritis (TGE), and adjacent farms have had no clinical evidence of the three named diseases.

6.6 For the last 12 months, there has been no clinical evidence of vesicular stomatitis, leptospirosis, infectious atrophic rhinitis, toxoplasmosis, mycoplasma pneumonia and other serious infectious/contagious diseases.

6.7 For the last 12 months, it has been free of porcine reproductive and respiratory syndrome (PRRS):

6.7.1 It has had no evidence of outbreak of PRRS as a result of an examination of the breeding records; and

6.7.2 It has had neither clinical nor serological evidence of PRRS based on the regular monitoring at intervals of six (6) months.

7. Within 60 days prior to the first collection, the following tests shall be conducted on the donor boar with negative results in all cases:

7.1 TGE: serum neutralization (SN) test at 1:8, or ELISA; and

7.2 Brucellosis: tube agglutination test, less than 30 IU/ml; and

7.3 Leptospirosis: agglutination-lysis test at 1:100 for L. pomona, L. Hardjo, L. grippotyphosa, L. canicola, and L. icterohemorrhagiae.

7.4 Contagious swine pleuropneumonia: complement fixation (CF) test at the 1:10 dilution for subtype I and V.

8. Within 30 days prior to the first collection, the following tests shall be conducted on the donor boar with negative results in all cases:

8.1 PRRS: Indirect fluorescent Antibody (IFA) or Immunoperoxidase monolayer assay (IPMA) at 1:20 dilution or ELISA test; and

8.2 Aujeszky's disease, serum neutralization (SN) test at 1:4 or ELISA test; and

8.3 Vesicular stomatitis: SN test at 1:8; or, CF test at 1:5 dilution.

9. Between 28 and 40 days after the last collection, the following tests shall be conducted on the donor boar with negative results in all cases:

9.1 PRRS: IFA or IPMA at 1:20; or ELISA test

9.2 Aujeszky's disease: serum neutralization (SN) test at 1:4; or ELISA test; and

9.3 Vesicular stomatitis: serum neutralization (SN) test at 1:8; or, CF test at 1:5; and

9.4 Brucellosis: tube agglutination test; less than 30 IU/ml; and

9.5 Tuberculosis: intradermal tuberculin test with both avian and mammalian tuberculins without reaction.

10. During the period from the date of starting to implement the tests named in Item 7 through the date of concluding the tests described in Item 9, all animals that are resident in the AI center shall be examined and found to be healthy, being free of any clinical evidence of infectious/contagious diseases.

11. The diluent to be used for processing the semen for export to China must be free of infectious animal disease agents.

12. Before shipment, the semen shall be kept at a safe place approved by USDA, being protected from contamination.

13. Each shipment of semen must be accompanied by a USDA health certificate. The health

certificate shall have detailed information on the clinical diagnosis, health status, test methods, dates and results of tests for each donor animal and the type of any vaccine used, dates of vaccination, name and address of both consignor and consignee, and complete identification of the semen straws to be exported. The number of the USDA seal used on the shipping container shall appear on the health certificate.

14. The semen shall arrive at certain Chinese ports of entry on the appointed dates and via

the route, according to the import permit issued by the CAPQ.