The Collection of Blood Samples for the Agglutination Test in Bovine Infectious Abortion

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The vials are furnished to graduate veterinarians employed by owners upon application to the Laboratory of Animal Pathology and Hygiene, University of Illinois, Urbana, Illinois. The veterinarian will provide himself with the proper needles, two pans of antiseptic for immersing and cleaning them, and a bottle of iodin for sterilizing the area of skin to be punctured.
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The accuracy of the agglutination test in the diagnosis of bovine infectious abortion is influenced by many factors. First, the samples must be properly drawn and prepared for shipment so that upon arrival at the laboratory they will be in suitable condition for the test. It is therefore important that veterinarians select the proper equipment and employ the proper technic in dispatching the work.

Equipment Necessary for the Test

1. One pair of nose leads.
2. Tourniquet. This consists of 6 feet of quarter-inch rope with a loop in one end.
3. Tincture of iodin.
4. Bleeding needles, 14 to 16 gauge, 1 1/4 inches long.
5. Two small white enamel pans.
6. Sterile vials and block for holding same (Fig. 6).

Procedure in Collecting the Blood

1. Sterilize the bleeding needles by boiling. During the operation, immerse the needles in an antiseptic solution. Two enamel pans should be provided for the needles (Fig. 1). The needles should be cleaned after each operation in one pan of antiseptic and then immersed in the other. Bleeding needles that have been thoroughly cleaned and immersed in antiseptic can be used repeatedly.
2. Restrain the animal securely in a stanchion or by a halter and draw the head to one side by tension on the nose lead.
3. Put the rope around the base of the neck and draw it tight until the jugular vein is well distended (Fig. 2).
4. Paint a suitable area over the jugular vein with tincture of iodin (Fig. 3).
5. Take the bleeding needle in one hand and with a quick thrust enter the skin and then complete the operation by an additional thrust into the jugular vein (Fig. 4).
6. Uncork the sterile vial and fill with blood up to within 1/2 inch of the top. Label the vial with the cow's number or some other equally good mark of identification (Fig. 5). The block containing the vials with labels is shown in Fig. 6.
7. When enough blood has been collected release the tourniquet and quickly withdraw the needle.

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Fig. 2.—Applying the Tourniquet

Fig. 3.—Applying the Iodin
Fig. 5.—Collecting the Blood Sample in a Sterile Vial

Fig. 6.—Sterile Vials Labeled and Standing Conveniently in a Wooden Block. (See Fig. 1.)
FIG. 7.—AMOUNT OF BLOOD TO BE COLLECTED
Fill the bottle to within $\frac{1}{2}$ inch of the top.

FIG. 8.—LABELING THE VIALS FOR IDENTIFICATION
Each bottle should be numbered or in some way effectively labeled just as soon as it is filled with the blood sample. A record can then be made for each cow tested.
Shipment of the Blood Samples

1. Send the blood samples by special delivery in the carton shown above. This carton with the vials is supplied to graduate veterinarians upon application to the Laboratory of Animal Pathology and Hygiene, University of Illinois, Urbana, Illinois.

2. Avoid drawing the blood and sending the samples so that they lie over Sunday or holidays in the post office. Blood samples should be held at ice-box temperature until mailed.

3. Do not expose the blood to sunlight, high temperature, freezing, or in any way permit antiseptic solution or water to come in direct contact with it, as these agents cause hemolysis, making it impossible to test the sample.