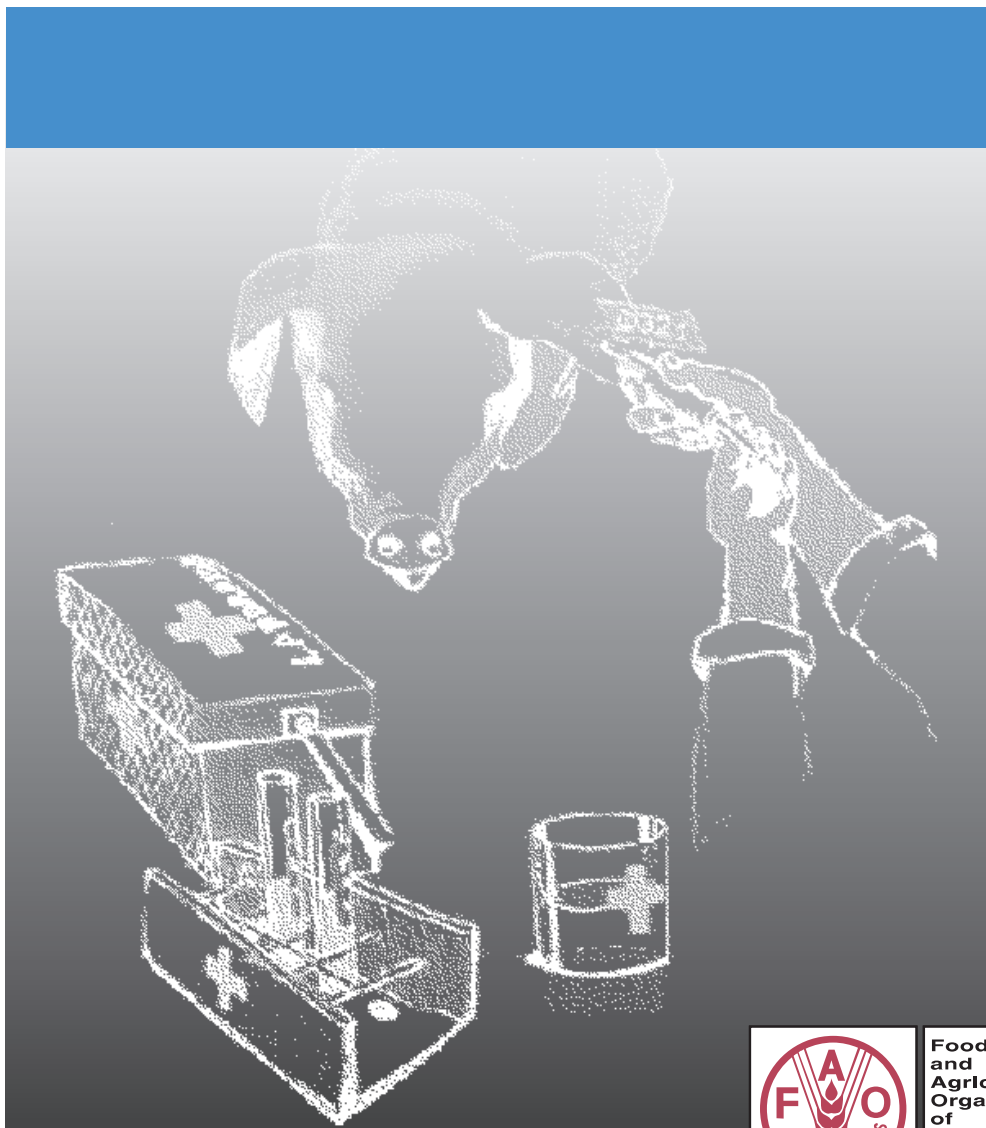


MANUAL ON AFRICAN SWINE FEVER FOR PIG PRODUCERS



Food
and
Agriculture
Organization
of
the
United
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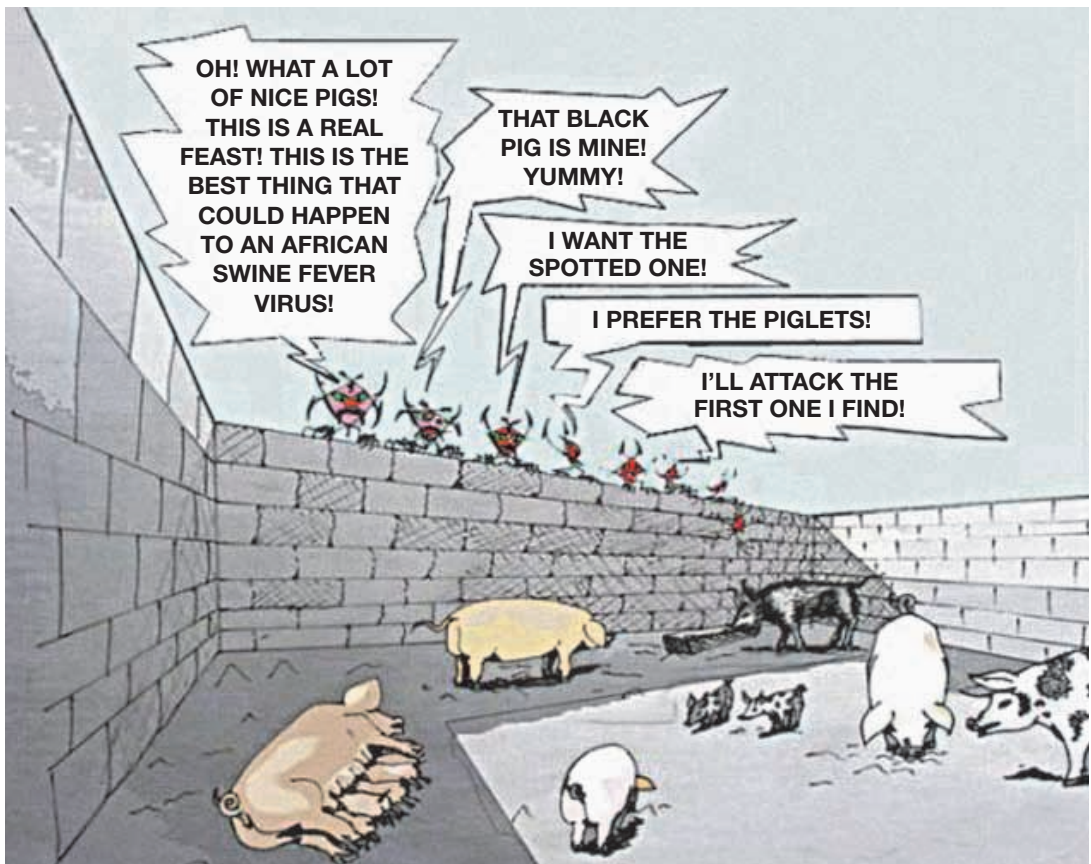
MANUAL ON
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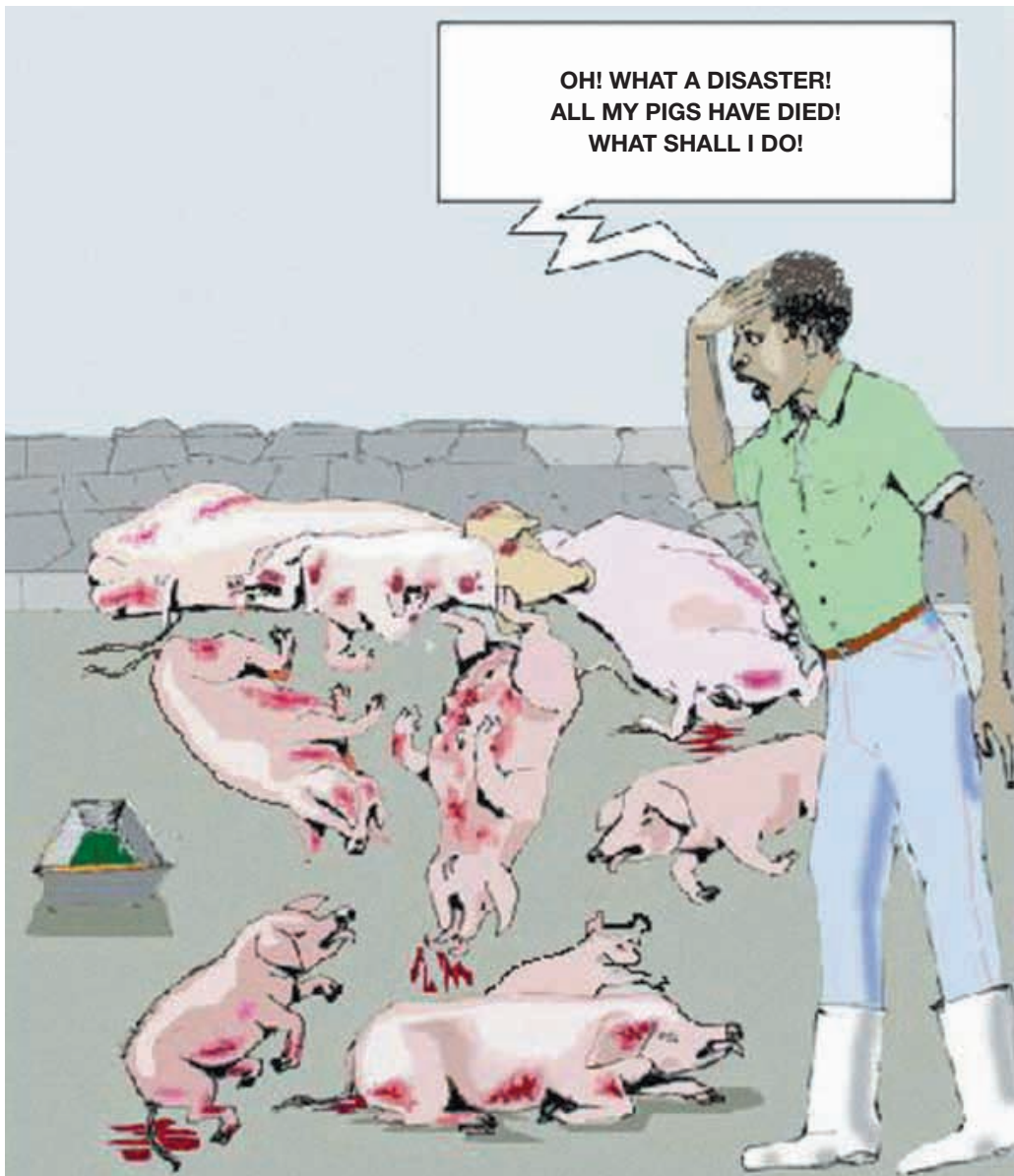
Rome, 2001

African swine fever is a very important disease of pigs. It is caused by a **virus**, which is a microbe that cannot be seen without special microscopes.

This microbe attacks domestic and wild **pigs**, causing great losses in pigs of all races, sexes and ages. It does not affect other animal species or humans.



The disease can often **kill all the pigs** of a pig owner and, by contagion, can even cause the death of practically all the pigs in nearby villages.



After being infected by the virus, pigs usually **become sick** and die within a few days.

Sometimes, pigs may **die suddenly** without any other signs of disease.



The **signs of disease** will vary from one pig to another.

The most common signs of disease are as follows:

- **lack of appetite**
- **fever** – the body temperature rises
- **weakness**
 - **difficulty in moving** and sometimes staggering as if drunk
 - **huddling** together



- **vomiting** blood
- **diarrhoea**, sometimes with blood
- **difficulty in breathing**, abdominal respiration and coughing
- **abortion** by pregnant sows
- **red spots on the skin** of white pigs

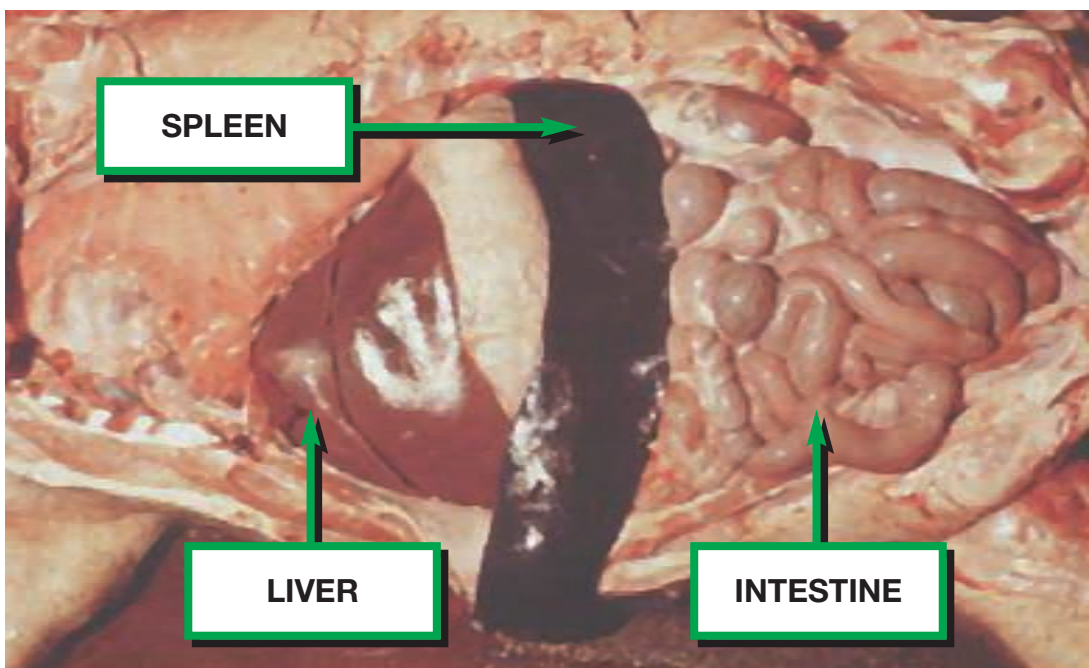


Sometimes when pigs have been **chronically infected** for a long time, their growth is stunted and they may have swollen joints and wounds on the skin that persist and do not seem to heal.

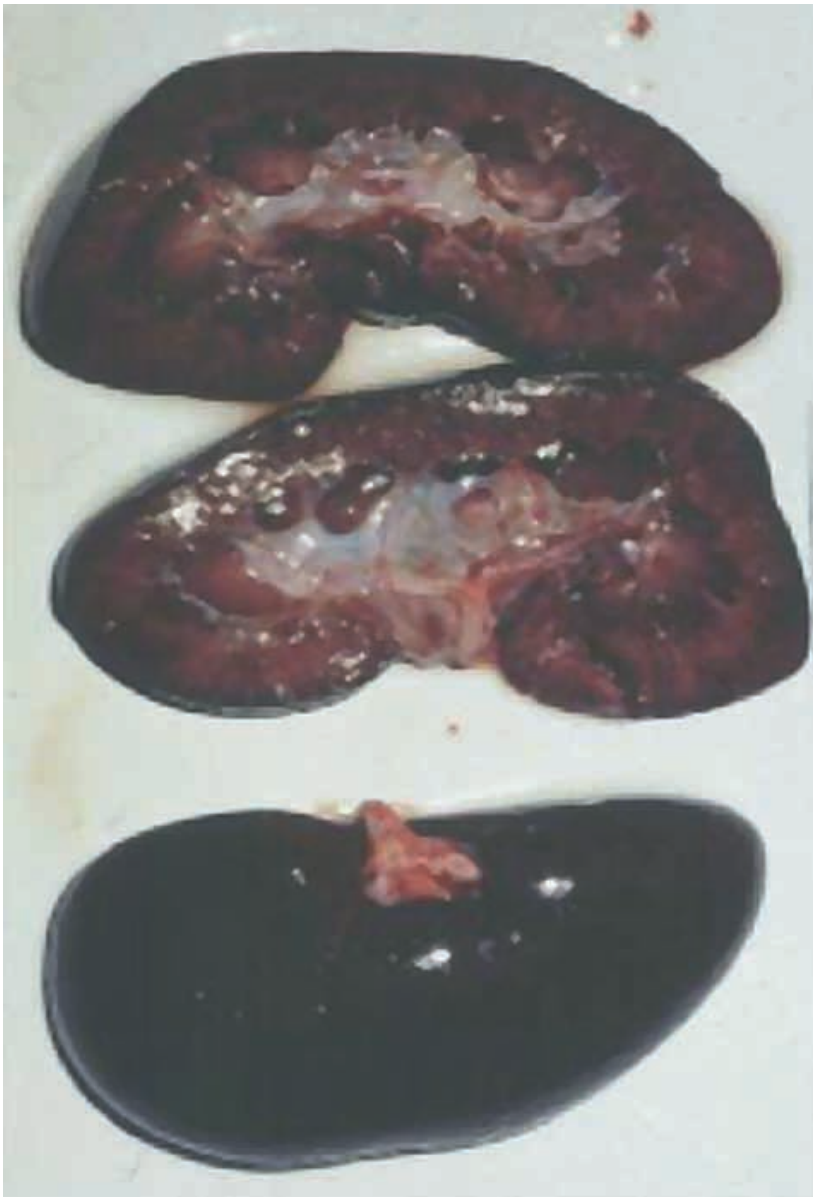


Frequently, when observing the organs of sick pigs that died or were killed, a **large amount of blood** may be seen in several **organs**:

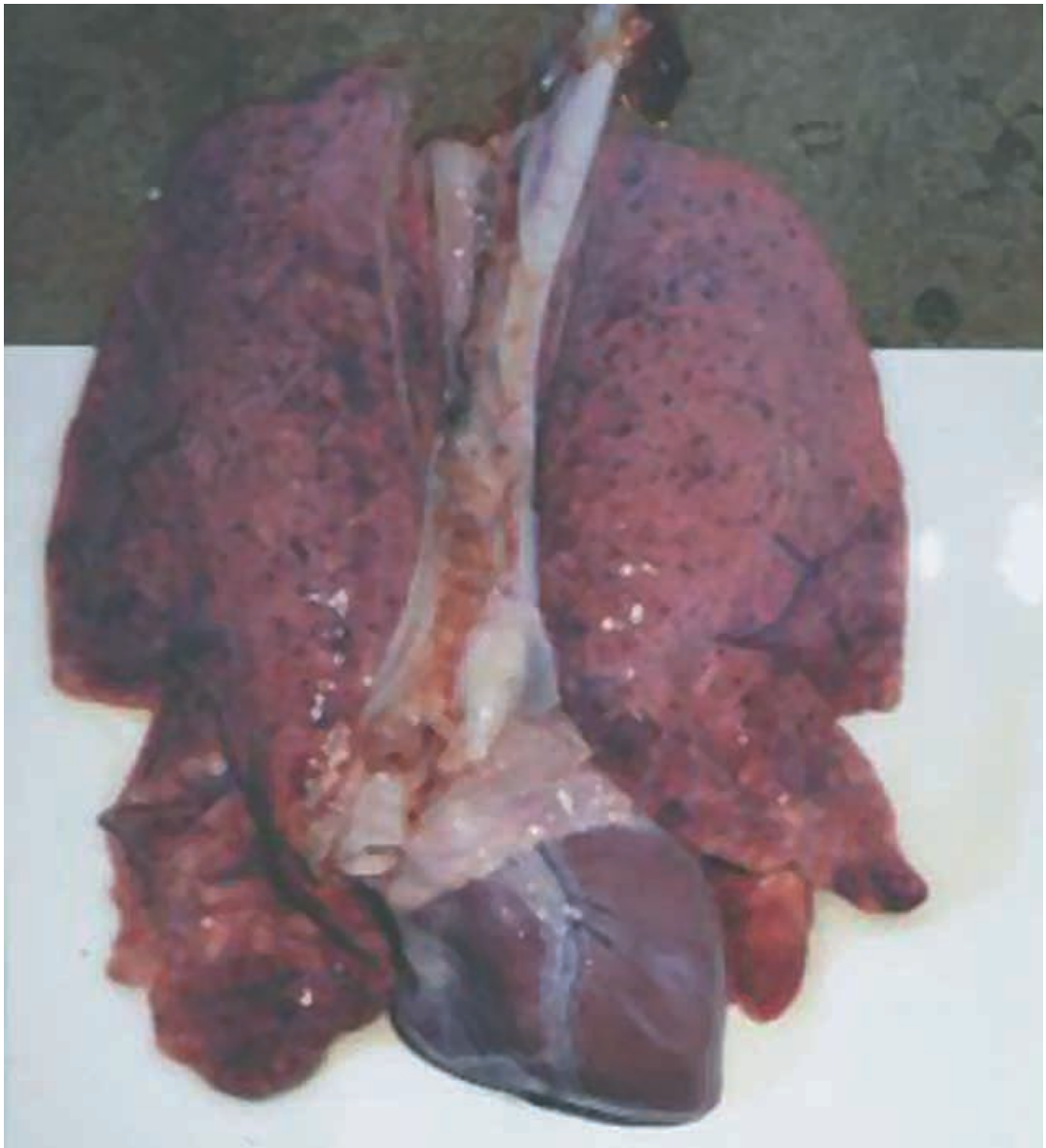
- the **liver** may have small red dots of blood on its surface;
- the **gallbladder** may be abnormally big;
- the **spleen** may increase considerably in size, becoming dark red in colour and soft in consistency;
- the **bowels** may be an unusual red colour and the faeces inside them may be liquid;



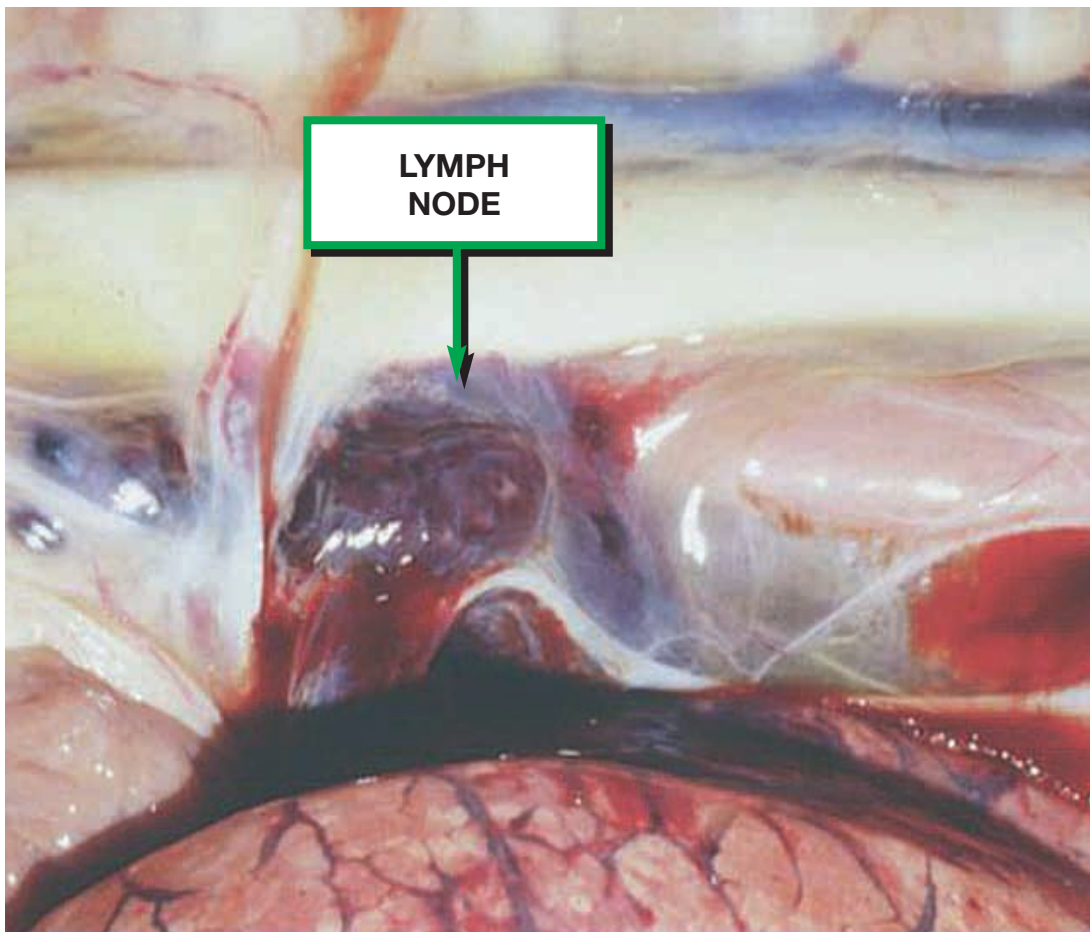
- the **kidneys** may be dark red in colour and may sometimes have small red dots of blood on their surface;



- the **heart** and **lungs** may also have small red dots of blood on the surface. Sometimes **liquid** may have collected in the thoracic cavity and next to the heart;

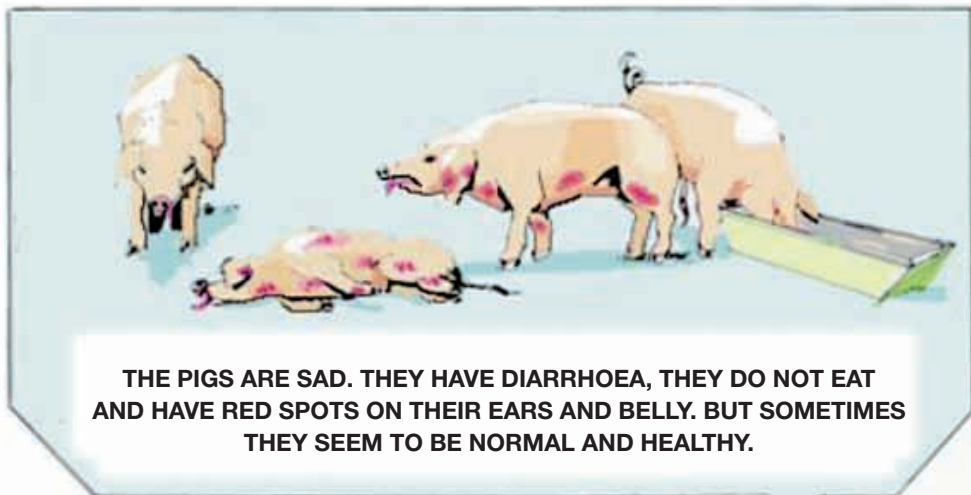


- the **lymph nodes** throughout the body may be pink or reddish in colour due to the amount of blood in them. They may even look like blood clots.



However, pigs infected with African swine fever virus do not always show signs of disease. Some **infected pigs may look normal and healthy.**

Animals with no signs of the disease, or animals that seem to have recovered, may carry the virus. Such animals represent a **danger**, because they may release the virus into the environment and **contaminate other swine.**



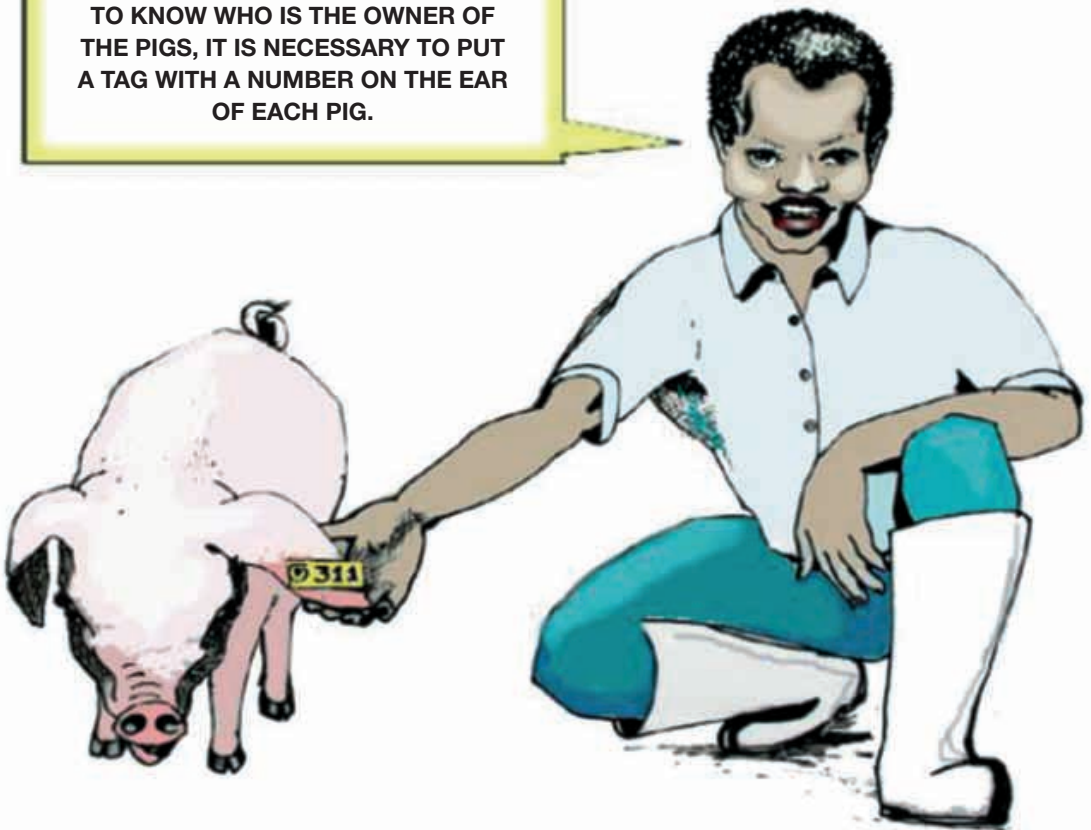
These very dangerous pigs can only be detected if a **blood sample** is taken and sent to a veterinary laboratory for analysis.

Laboratory analysis can also be done on samples of **blood** or **organs** of sick animals that are suspected of having African swine fever. This is important, because there are other diseases of pigs with similar signs and only the veterinary laboratory can diagnose the disease.

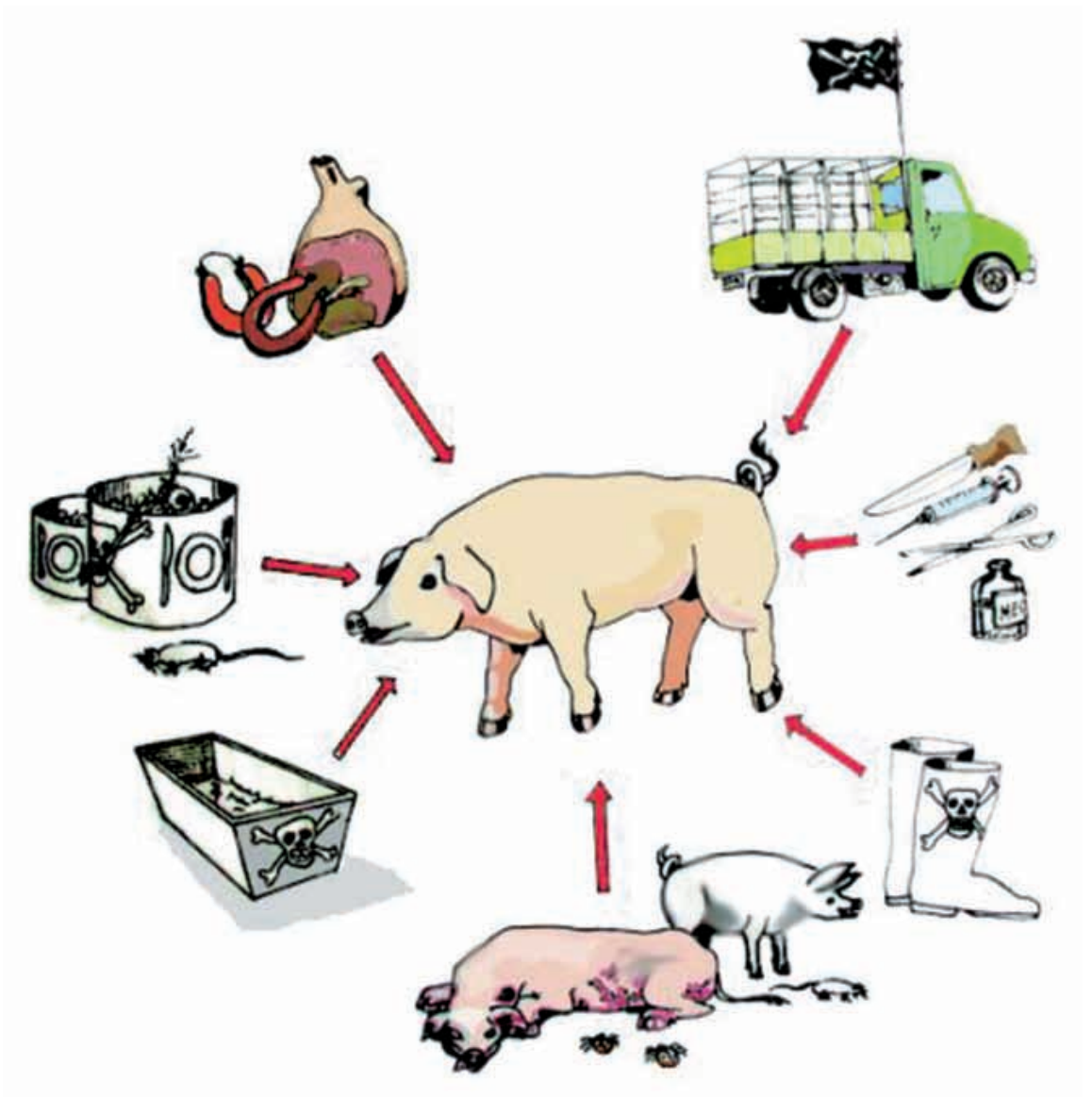


To know which pigs have been analysed, use **tattoos** or **tags** in the ears of the animals as identification.

TO KNOW WHO IS THE OWNER OF THE PIGS, IT IS NECESSARY TO PUT A TAG WITH A NUMBER ON THE EAR OF EACH PIG.



The **disease is spread** to healthy pigs not only by the wind, but in other ways as well.



The disease can be **transmitted by:**

- Pigs that are **infected and sick**, or pigs that are **apparently healthy**.

They release the virus into the environment through secretions from the nose and eyes and through their faeces, urine and vomit. The virus may contaminate water and feed, and boots, clothing, knives, equipment and other articles.

- The **vehicles** used in the transport of infected animals.

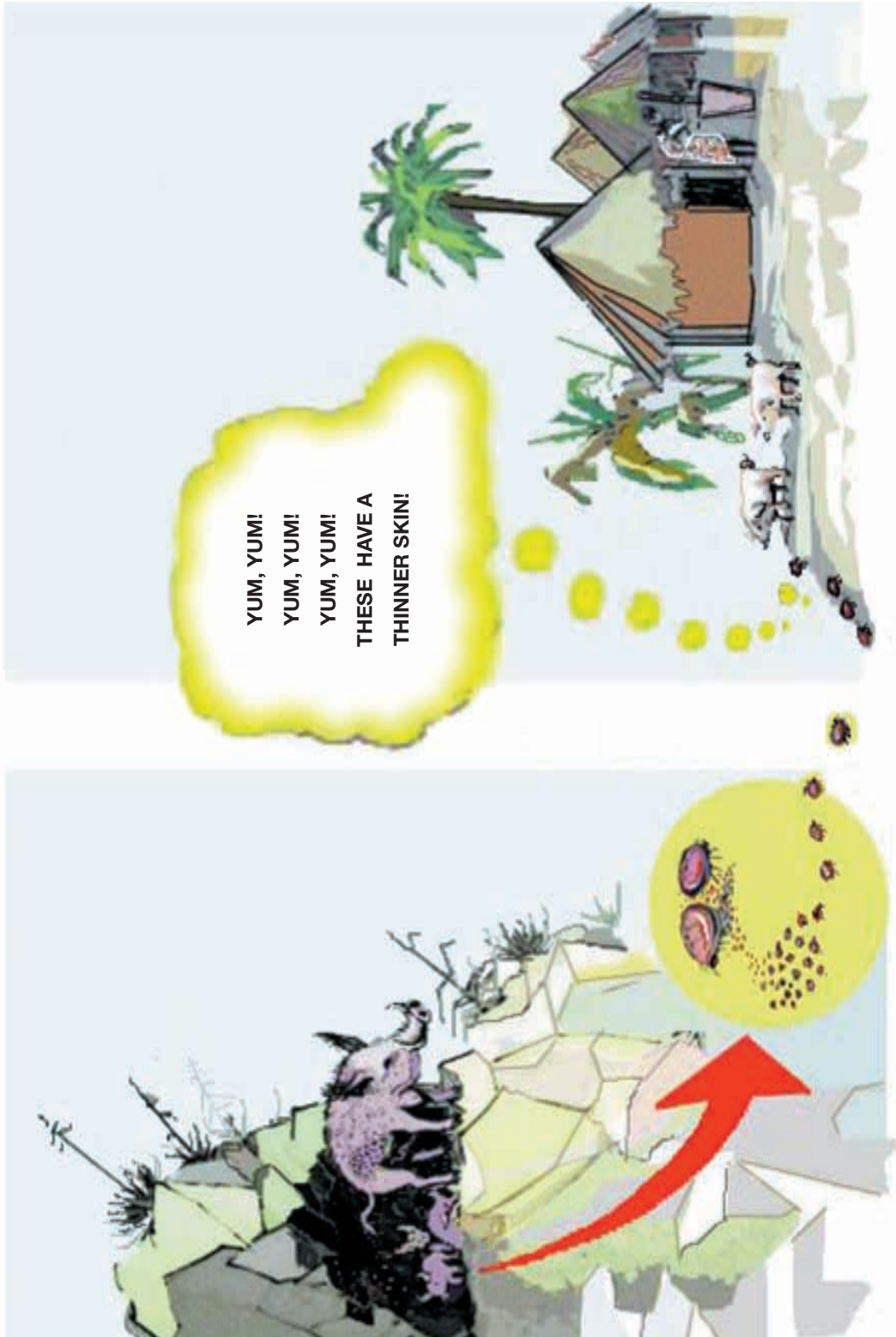
- The **food** given to the animals.

The virus can exist for months in **meat** and in **pork sausages** and can then infect the pigs. Because of this, pigs should **not** be fed with **waste food** containing meat, sausages or the organs of infected pigs that have not been properly cooked.

- Other **domestic animals, mice and rats**.

They may move infected food and waste to places where the healthy pigs can eat them and so become infected.





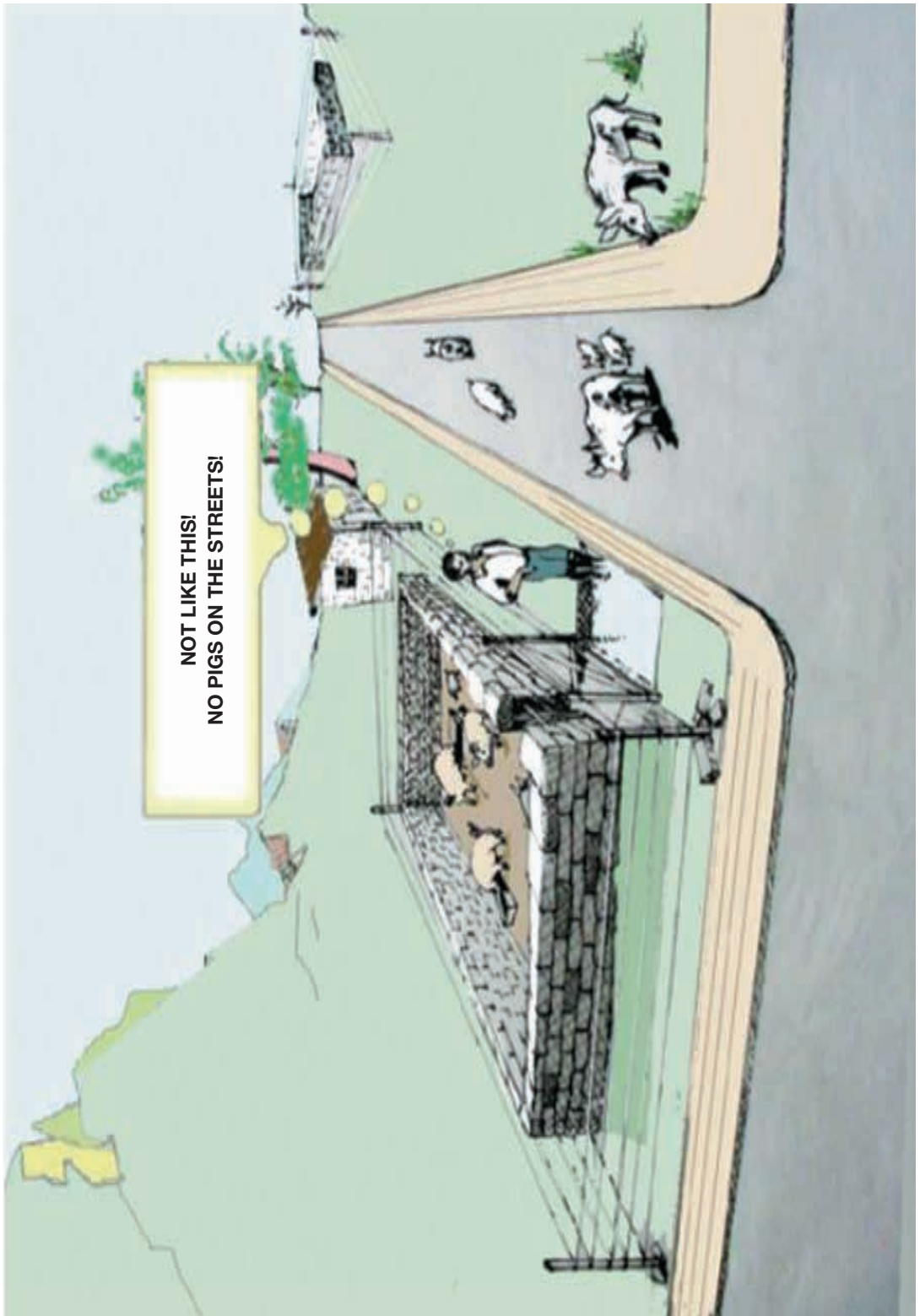
The disease can be transmitted by **wild pigs**, such as warthogs and bush pigs. The virus is carried by a kind of soft-shelled **tick**, called *Ornithodoros moubata* by the experts.

**THERE IS AT PRESENT
NO VACCINE OR TREATMENT
FOR AFRICAN SWINE FEVER.**

The only way to avoid transmitting African swine fever is for pig owners to obey strictly a **set of measures** recommended by veterinary experts.

We are going to present the most important measures in the form of **QUESTIONS** and **ANSWERS**.





QUESTION: Are **free-ranging pigs** dangerous in the transmission of African swine fever?

ANSWER: Yes, because the pigs may be infected, even if sometimes they do not look ill. They may **transmit** the disease to healthy pigs by **direct contact** or **indirectly** by contamination of the environment, people's shoes or their equipment.

To avoid infection caused by contact with free-ranging pigs, other pigs must be kept **enclosed in pigsties**.

People other than the producer and his workers **should not be allowed in the pigsties**. Disinfectant solutions should be used to clean all equipment and for the **footbaths** at the entrance to the pigsties to disinfect the footwear of every person who enters or leaves.

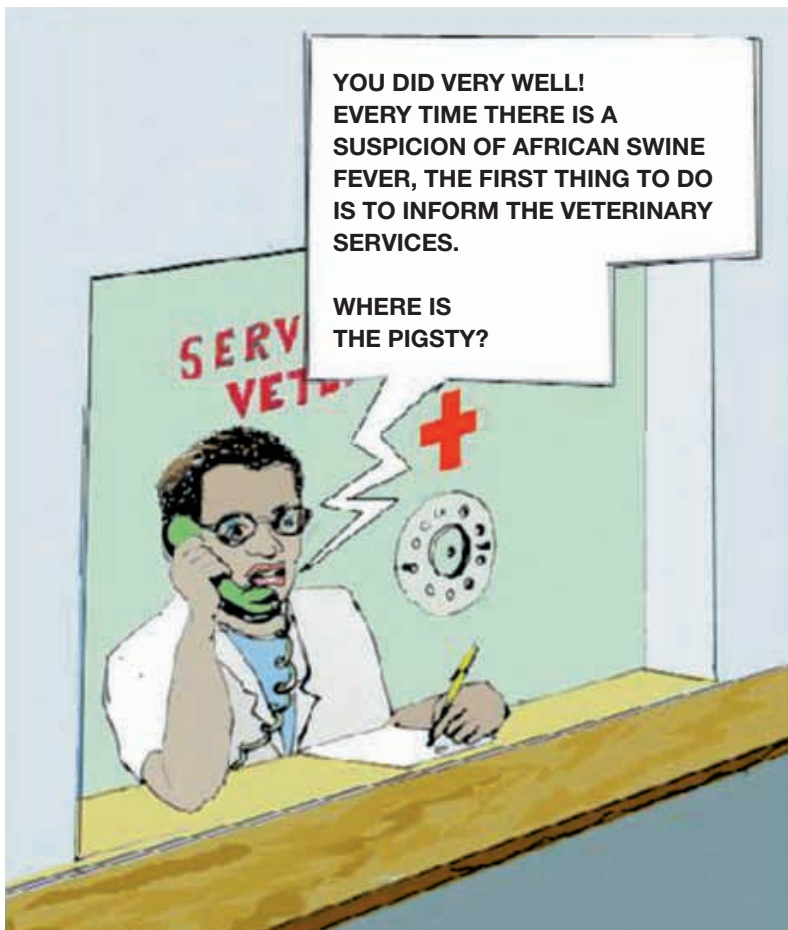
QUESTION: Can **remains of human food** containing pork products be used to feed pigs?

ANSWER: It is safer to **avoid using** these products for feeding pigs, because they may be infected with African swine fever virus. However, if this cannot be avoided, the products must be cut into **thin slices**, **boiled** and cooked for at least **one hour**.



QUESTION: The pigs appear to be **infected** with African swine fever or **dying** from it. What should be done?

ANSWER: The **veterinary services should be informed URGENTLY**, so that technicians can go to the pigsty and collect samples for analysis at the laboratory.

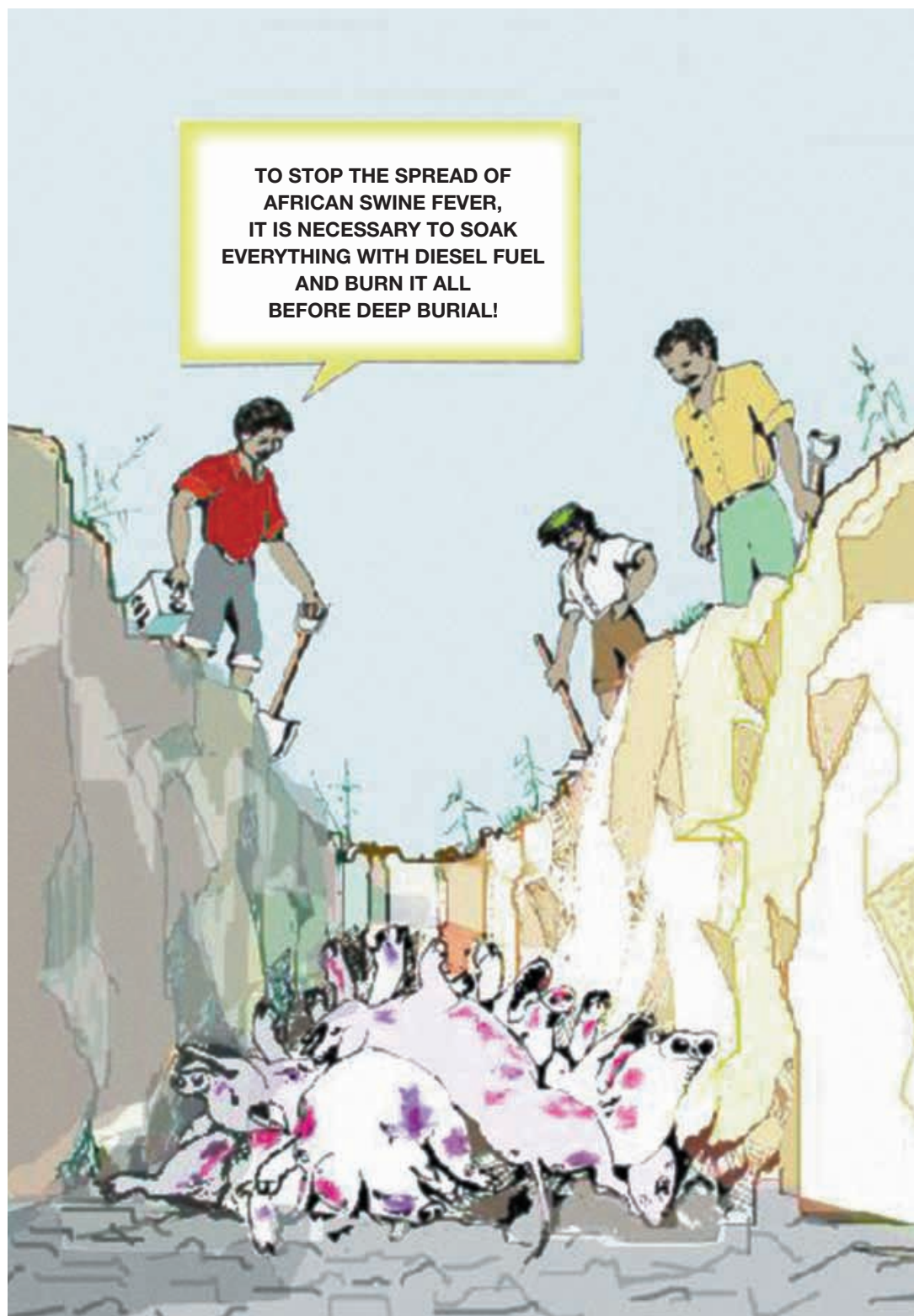


QUESTION: If the veterinary services say that they cannot come to the pigsty immediately, what should be done with the **animals suspected** of having African swine fever?

ANSWER: Healthy pigs **must not have any contact** with sick or dead pigs. **Dead** animals should be **destroyed** – burnt whenever possible – and then **buried** in a hole two metres deep.

After investigation, the veterinary services may decide to **slaughter any animals that were in contact** with pigs that were sick or may have been infected.

**TO STOP THE SPREAD OF
AFRICAN SWINE FEVER,
IT IS NECESSARY TO SOAK
EVERYTHING WITH DIESEL FUEL
AND BURN IT ALL
BEFORE DEEP BURIAL!**



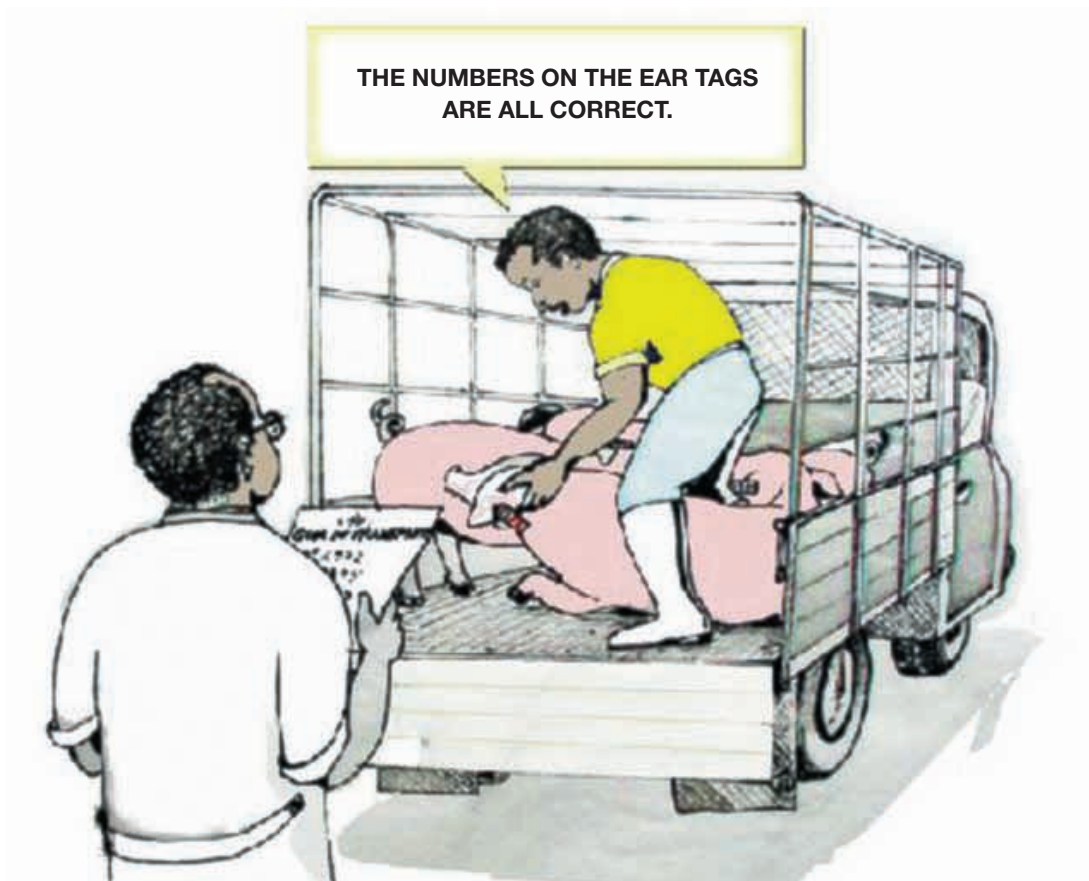
QUESTION: What must be done in the **pigsties** where the infected animals were kept?

ANSWER: The pigsties should be thoroughly **washed and then disinfected** with 2% caustic soda. The producer must **not repopulate** the premises with pigs for the period of time indicated by the veterinary services. This guarantees that any remaining infected material has been destroyed and that the premises will not be infectious to other pigs brought in for production.



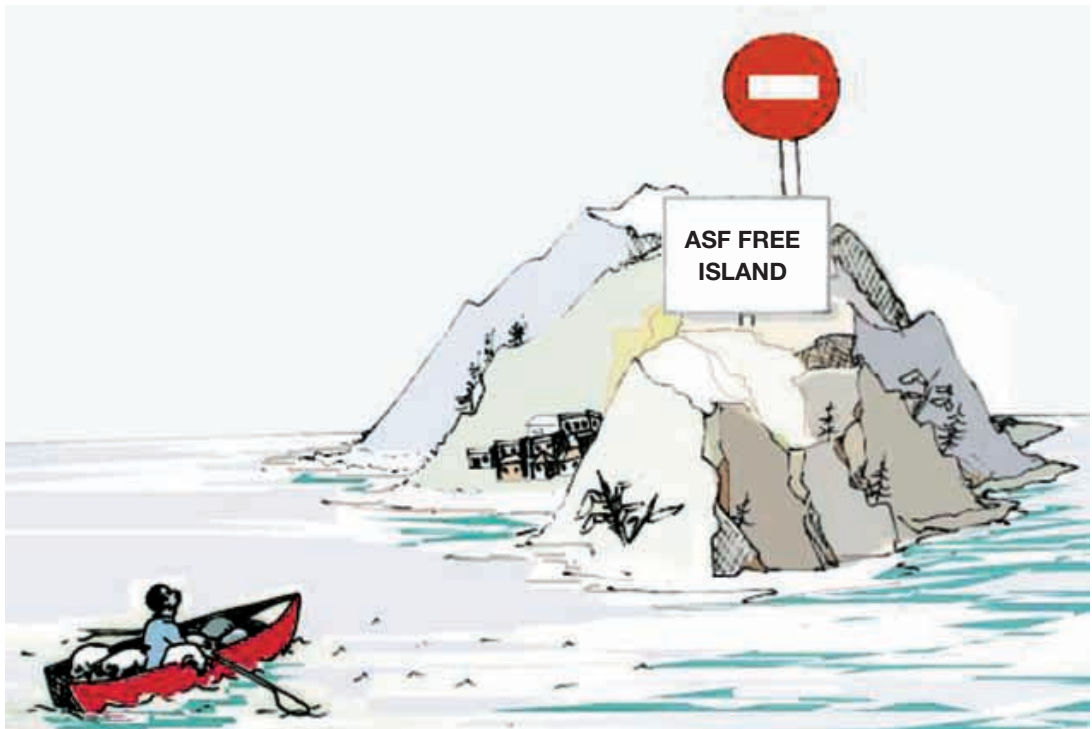
QUESTION: How can I know whether **pigs in transit** are healthy and that they do not come from areas already infected with African swine fever?

ANSWER: The **identification tags** on the animals in transit and the documents accompanying the shipment make it possible to determine where the animals come from and to know if those areas are free of African swine fever or not.



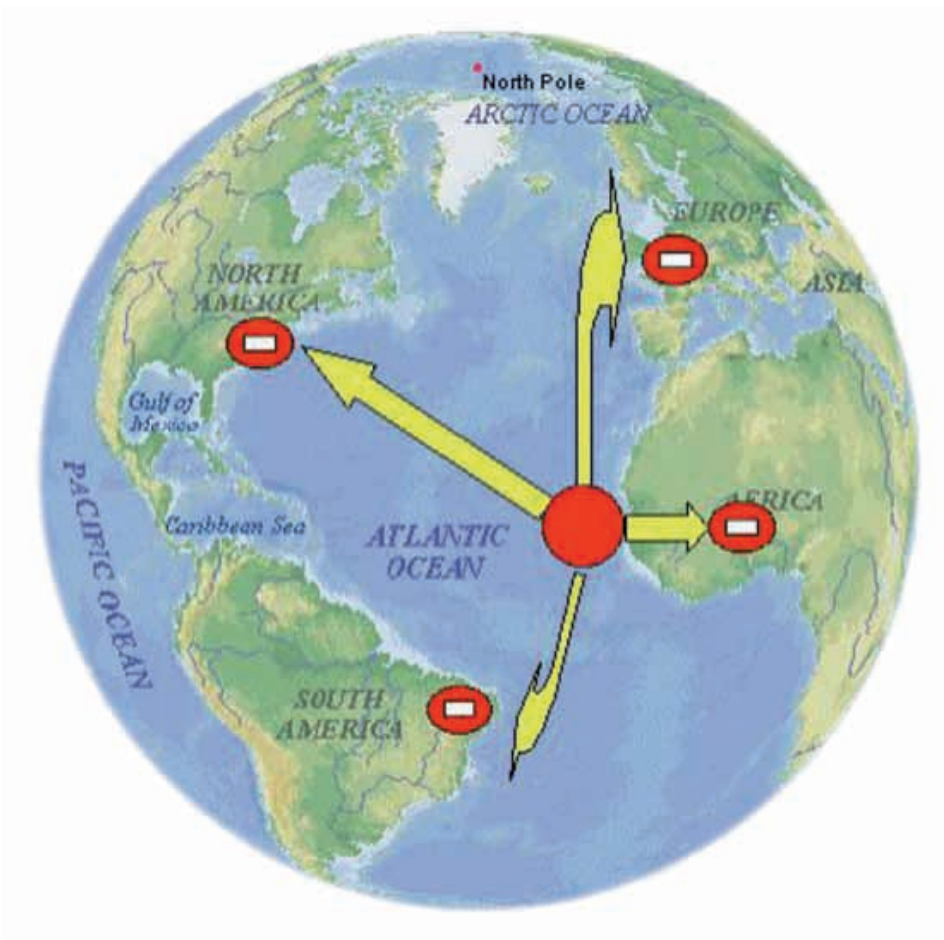
QUESTION: Why do the veterinary services and the police and military authorities work together to control so strictly the **illegal movement of pigs, pig meat and pig products** inside countries and across borders?

ANSWER: Because they want to **guarantee** that the **areas and countries free of African swine fever** remain free. They want to protect their people from the losses caused by the huge mortality among pigs infected with this disease.

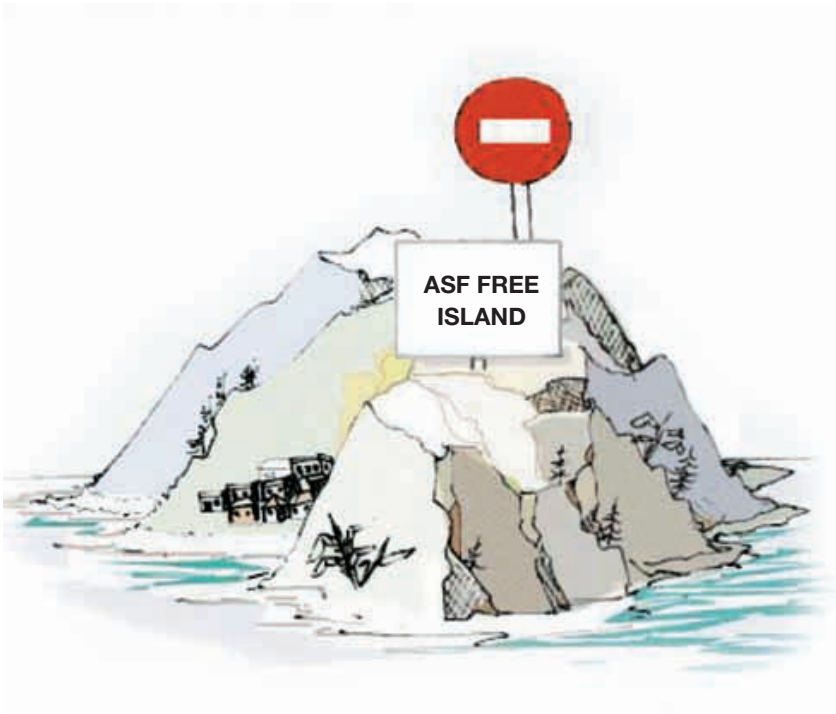


QUESTION: Can **tourists and emigrants** take sausages and pork products with them when they travel abroad?

ANSWER: No. It is **ILLEGAL** to carry these products from ASF-infected countries, since it represents a major risk to pig production in countries that are free from the disease. If travellers do carry these products, they will have problems at customs.



PIG PRODUCERS!
COLLABORATE WITH THE VETERINARY
SERVICES SO THAT YOUR COUNTRY IS
FREE OF ASF!



For any query or for information, contact the
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responsible for the fight against
African swine fever.

Identification of services
address:
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www.fao.org/waicent/faoinfo/agricult/aga/agah/empres/empres.htm



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