National Action Plan on TiLV (Mozambique)

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FARMED AND WILD POPULATION OF TILAPIA

- Production statistics
  - Very scarce due to illegal exports of wild tilapia
    - **Wild around**: 5,000 metric tons
    - **Farmed around**: 1,000 metric tons
  - **Farm registry**
    - Big farms: 20
    - Small farms: 80 (around 10,000 ponds in the country)

DIAGNOSTICS

- Diagnostic laboratories and competence (in country)
  - **UEM (1)** but with very low experience in aquatic disease including **PCR testing**
- Diagnostic laboratories (out of the country)
  - **Ecuador, Brazil** (when we had white spot)
- Diagnostic tests
  - Gross pathology (IIP and INIP)
  - **PCR ?? (UEM)**

SURVEILLANCE OBJECTIVE

- To investigate presence/absence of TiLV in wild and farmed fish

- To secure early detection of TiLV

DEFINITION OF POPULATION

- All susceptible fish species （all stages) in rivers and lakes：(**Nile tilapia， Mozambique tilapia ?， Tilapia rendalii ?**)

- All farmed susceptible fish species using imported **Nile tilapia from Thailand**

CLUSTERING OF DISEASE

- TiLV occurs mostly at water temperatures ranging between 22-32°C.

Country	Which month of the year			
	Q1	Q2	Q3	Q4
Mozambique	Jan-March			Oct.-December

CASE/OUTBREAK DEFINITION

- **Suspect TiLV case**: A fish showing clinical signs similar to the ones associated with TiLV followed by mortality.
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- **Suspect TiLV location**: A location where one or more suspect TiLV fish have been found: **Gaza province**
- **Confirmed TiLV case**: Histopathology; viral isolation or PCR.

SAMPLING

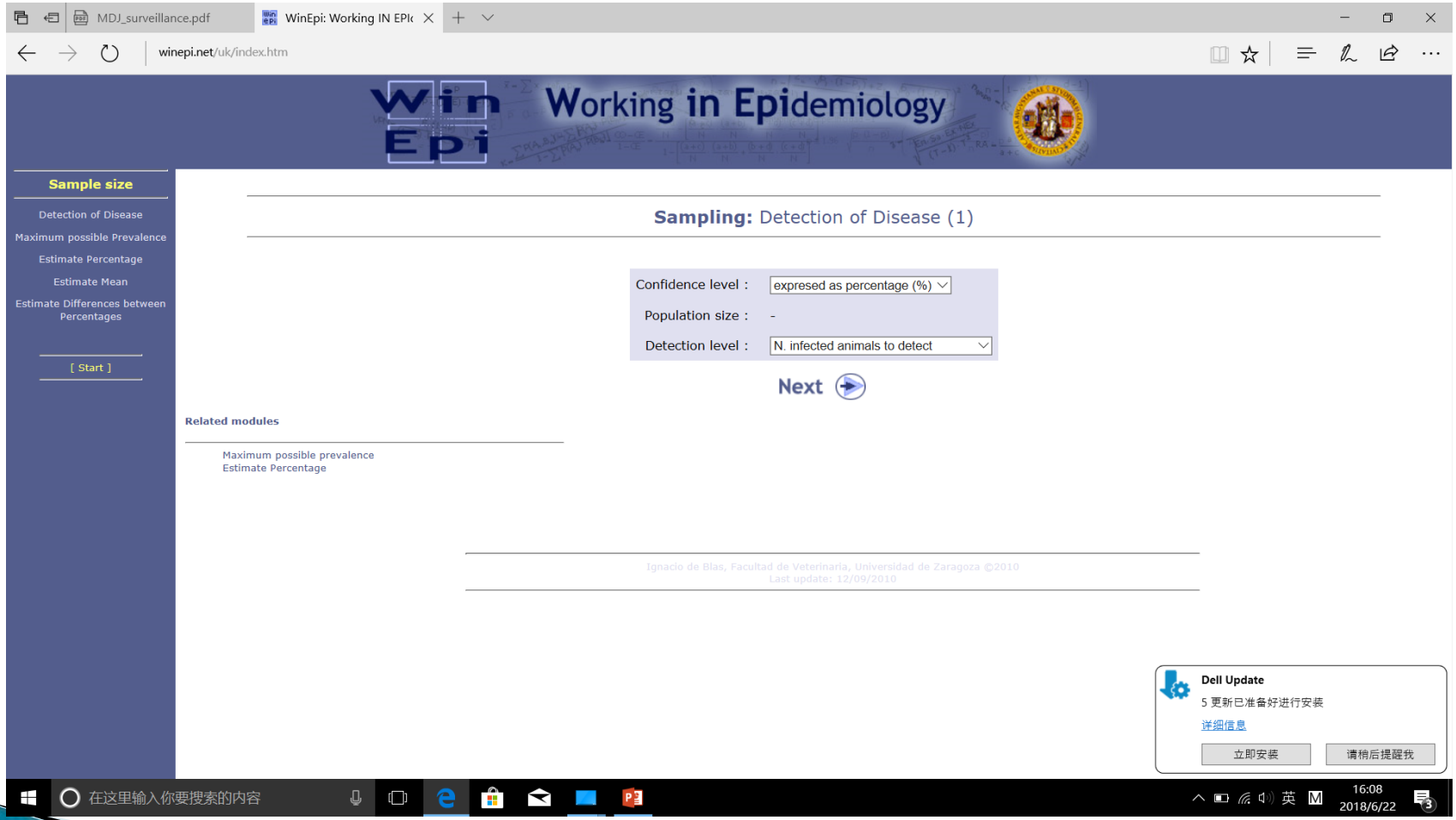
- **Wild fish population**: non-random spatial sampling in the suspect TiLV location

- **Farmed fish population**： random sampling in the suspect TiLV location

DIAGNOSTICS/TESTING

- **Clinical signs**:
  - **Gross pathology：** skin erosion，hemorrhage at the base of fin and opercula，scale protrusion，abdominal swelling，skin darkening，gill pallor，ocular alteration.
  - **Histology**: Sections of liver, brain..
  - **For confirmation:** samples sent to reference lab for PCR, etc.
  - **Laboratories included：** UEM, ????

STUDY DESIGN AND DATA ANALYSIS METHODOLOGY



http://winepi.net/uk/index.htm

DATA FLOW AND MANAGEMENT

1. Data collection before sampling using separate **questionnaires for wild and farmed fish.**
2. **After sampling and inspection of fish in a sample**, (form will be completed and sent together with fish samples to diagnostic laboratory).
3. **All data and results entered into a database**.

4. **If a post surveillance analysis is needed , a database in English language will be prepared**

VALIDATION

- The validation will be performed by the veterinary of the competent authorities and the relevant experts

QUALITY ASSURANCE

- **National surveillance team** (NST) established;
- **Training and education of NST on TiLV**: pathogen, biology, pathology, diagnostics and surveillance;
- **A clear standard operating procedures** developed and used during implementation,
- **Aseptic technique procedures** developed and made clear to the sampling teams;
- **Sampling teams closely supervised**; and a pilot survey will be conducted as a sampling exercise .

HUMAN AND FINANCIAL REQUIREMENTS

- Operational requirements
  - Surveillance team
  - Diagnostic team
  - Field support team
  - Communication
  - Work plan
  - Finance (**cost of sampling, cost of laboratory tests, analysis of data, etc.**)

PUTTING SURVEILLANCE IN THE BIGGER PICTURE

- National fishery/aquaculture authorities will enhance their competence and gain trust, and the society will benefit as whole by contributing to national economy, public health and country recognition in world trade.

THANK YOU