

# Identification of optimal time for change of surveillance strategy based on assessment of cost of error

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**RESEARCH QUESTION: Should visual-only inspection (VOI) replace traditional meat inspection (TMI) of outdoor-reared pigs in Denmark?**

**Background:**

- New EU Regulation allows VOI of outdoor-reared pigs - but countries outside EU do not accept this
- Danish pig industry relies on market agreements
- No bovine tuberculosis (bovTB) cases since 1994 and no infection in wildlife
- Denmark (DK) mainly consist of islands and only few animals are imported annually
- Intra-species transmission not expected in pigs (dead-end hosts)

**Hazard:**

- bovTB

**Aim:**

- Assess cost of error related to overlooking a positive case (see green boxes below)

**Methodology:**

- Scenario tree analyses with assumed probabilities for different scenarios - see figure below

**Sensitivity (Se) of meat inspection:**

- \*Se of VOI (14-24%) is lower than that of TMI (71%)

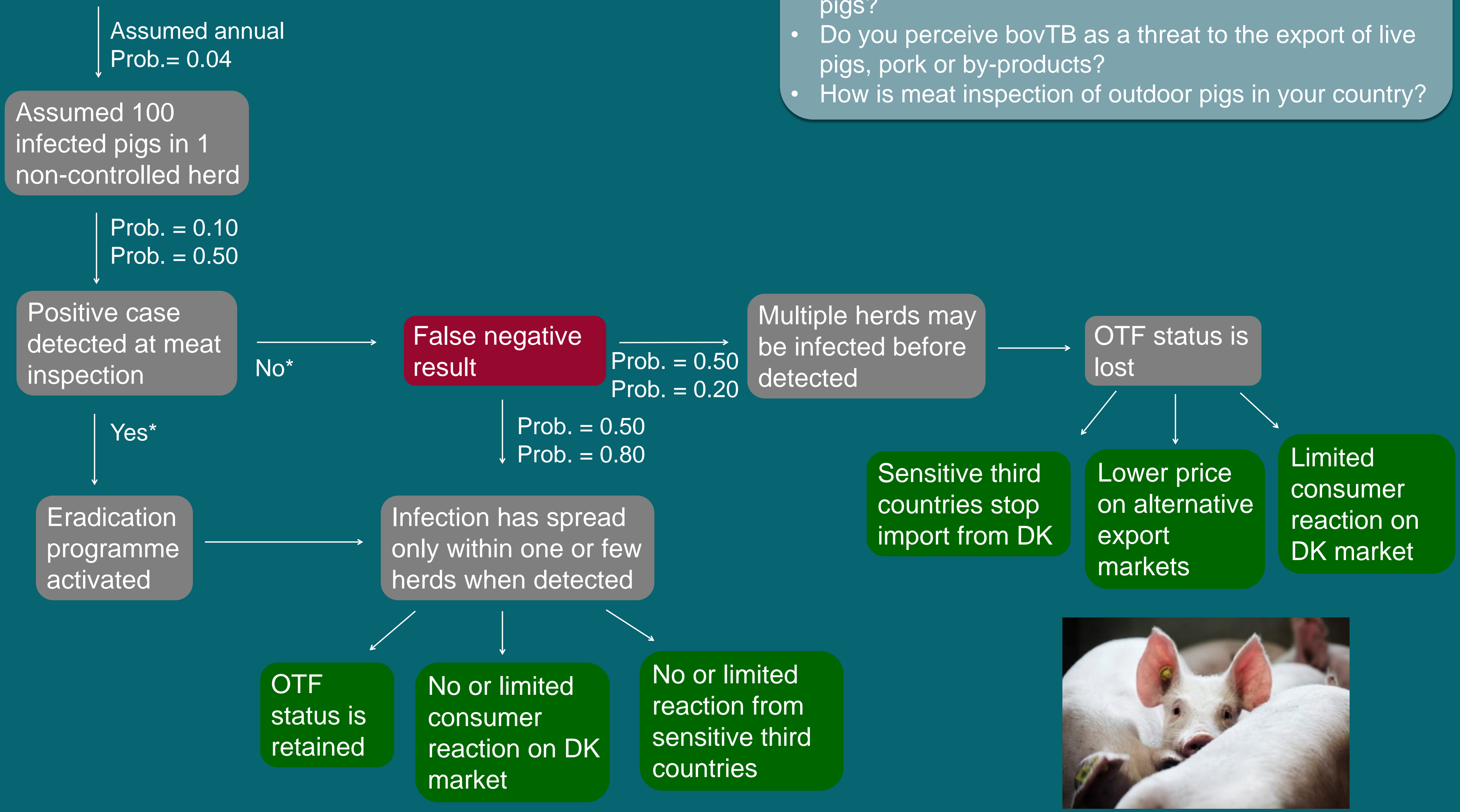
**Expert opinion regarding reactions on export market revealed:**

- Importing countries can use bovTB as argument to close for import
- Market reaction expected, if DK loses Official TB-free (OTF) status
- No reaction from importing countries expected, if one or few positive cases occur and eradication programme is initiated and successfully implemented

**Epidemic outbreak of TB suspicions in winter 2016/2017:**

- Untreated peat identified as source of TB like lesions in pigs found at meat inspection (due to *M. avium* in peat)
- Untreated peat can no longer be used in Danish SPF pig health programme
- Peat company has withdrawn untreated peat from market
- Requirement for direct transport of pigs from TB suspected herds to slaughter has been suspended
- Current discussion with veterinary authorities regarding changes in handling of pig herds with TB suspicion

Hypothetical scenario: BovTB introduced to DK due to infected wildlife, imported animals or employees



**Open discussion for ISESSAH/SVEPM audience:**

- What is the monetary value of surveillance for bovTB in pigs?
- Do you perceive bovTB as a threat to the export of live pigs, pork or by-products?
- How is meat inspection of outdoor pigs in your country?

