

A Simplified Scottish FMD Vaccination Scenario

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Scientific advice

- Vaccine is available, effective for the virus and authorised for use in food species
- Given livestock density and likelihood of spread, vaccination MAY be effective
- But FMD may be stamped out before immunity develops
- Or FMD jumps ahead of vaccination (outside SZ)



Proposed Policy

- Compulsory protective vaccination of cattle in Surveillance Zone
- Allow vaccination of breeding pigs and rare breeds
- Intensive monitoring of pigs
- Intensified biosecurity for sheep
- Prioritise surveillance of herds/flocks with slaughter stock



Best case timeline

- Preliminary disinfection of IP(s) = d0
- Decision to vaccinate d5
- Start vaccination d8
- Complete/stop vaccination d14
- Start VZ surveillance d44
- Complete sampling d54, results d57
- OIE free 6 months





Surveillance zone

- 320 livestock holdings
- 200 with cattle
- 20 with pigs
- 25 000 cattle
- 25 000 pigs
- 30 000 sheep



Holdings in 10km SZ/VZ

No vaccination

- No moves for 30 days after IP culled but limited exceptions possible
- Slaughter possible in theory but in practice conditions onerous

Vaccination

- Same as SZ but restrictions tighter and remain until vaccination and then surveillance completed – at best 57 days
- Moves to slaughter feasible after ~44 days as surveillance progresses



Slaughter conditions in VZ days 44-57

- Abattoir within or close to zone
- Vaccinated beef heat treated unless holding tested clear then matured, pH tested and deboned
- Sheep and pig meat needs special treatment unless holding tested clear



Surveillance in VZ

- Clinical inspection of all susceptible animals on all holdings
- Test all vaccinated animals and their offspring
- Test sheep and goats at 95/5
- DIVA – NSP
- Could also test for vaccination compliance
- NSP seropositives must be culled
- Virus positive = disease



After VZ cleared to 6months post-outbreak

- Commission and SCoFCAH may lift all restrictions
- Movements within zone restricted
- Movements to slaughter allowed but vaccinated animals matured and deboned or restricted to national market
- Movements out of zone to live prohibited
- Vaccinated animals banned from live export for life



Long term

- No special controls on meat but vaccinated animals are not eligible for trade within the EU



Herds and flocks outside SZ

- May be in ESA, RZ or free zone
- Exports to third countries blocked regardless of vaccination – may not respect OIE code
- Exports to EU resume on the basis of evidence of disease being controlled – no fixed timescale
- No additional controls on animal movements or sale of milk or meat



Magnitude of costs

- FMD 2001 repeated in Scotland £400M
- £2M for 20K cattle vaccinated @£100
- £1M to cull cattle herd:
 - compensation, killing, disposal, cleanup
- £10M Surveillance 10km no vaccination
- £20M Surveillance 10km with vaccination



Conclusions

- Trade for producers outside the VZ is not much affected by vaccination – and they will be better off if disease is contained
- Owners of vaccinated cattle suffer some short term costs and they may lose long term value
- Owners of pigs and sheep in VZ suffer additional losses but if vaccinated they may be written off



Commission Decision 2009/470

...the specific financial contribution under this Decision shall be equal to 60 % of the costs incurred by the Member State in...compensating owners for...losses incurred by farmers as a result of restrictions imposed on the marketing of livestock and pasture-fattened animals as a result of the [re]introduction of emergency vaccination, in accordance with [the FMD Directive].





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Breakout groups

FMD vaccine use: the practicalities of availability, efficacy and delivery

Leader – Dr Peter Nettleton, Moredun

FMD vaccine: when would it be used?

Leader – Sam Mansley, Animal Health (retired)

The processing challenge: logistics, traceability, labelling, product quality/value

Leader – John Craig, SAMW

The consumer: product quality, presentation, information

Leader – Charles Milne, FSA Scotland

The impact on farm: different species different impact? Disrupted marketing, devalued product, a new role for compensation

Leader – John Ross, Moredun

