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# Swine Dysentery

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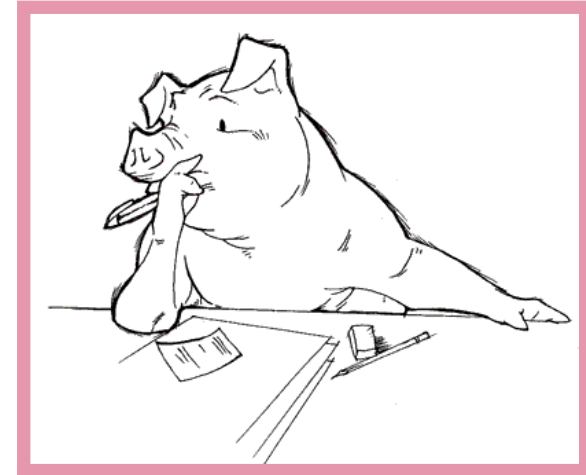
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# Swine Dysentery (SD)

🕒 What is SD?

## The current risk

🕒 How can SD enter a pig unit?



## How can each part of the chain contribute in control?

🕒 What can you do about it?



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# What is Swine Dysentery?



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# What is Swine Dysentery?

Mild colitis

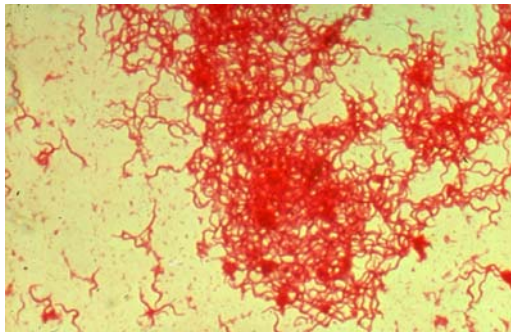


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# What is Swine Dysentery?

- 🕒 *Brachyspira hyodysenteriae*
- 🕒 Mobile spirochaete
- 🕒 Virulent and avirulent strains
- 🕒 Ability to mutation, recombination



*B.hyodysenteriae* stained under the microscope



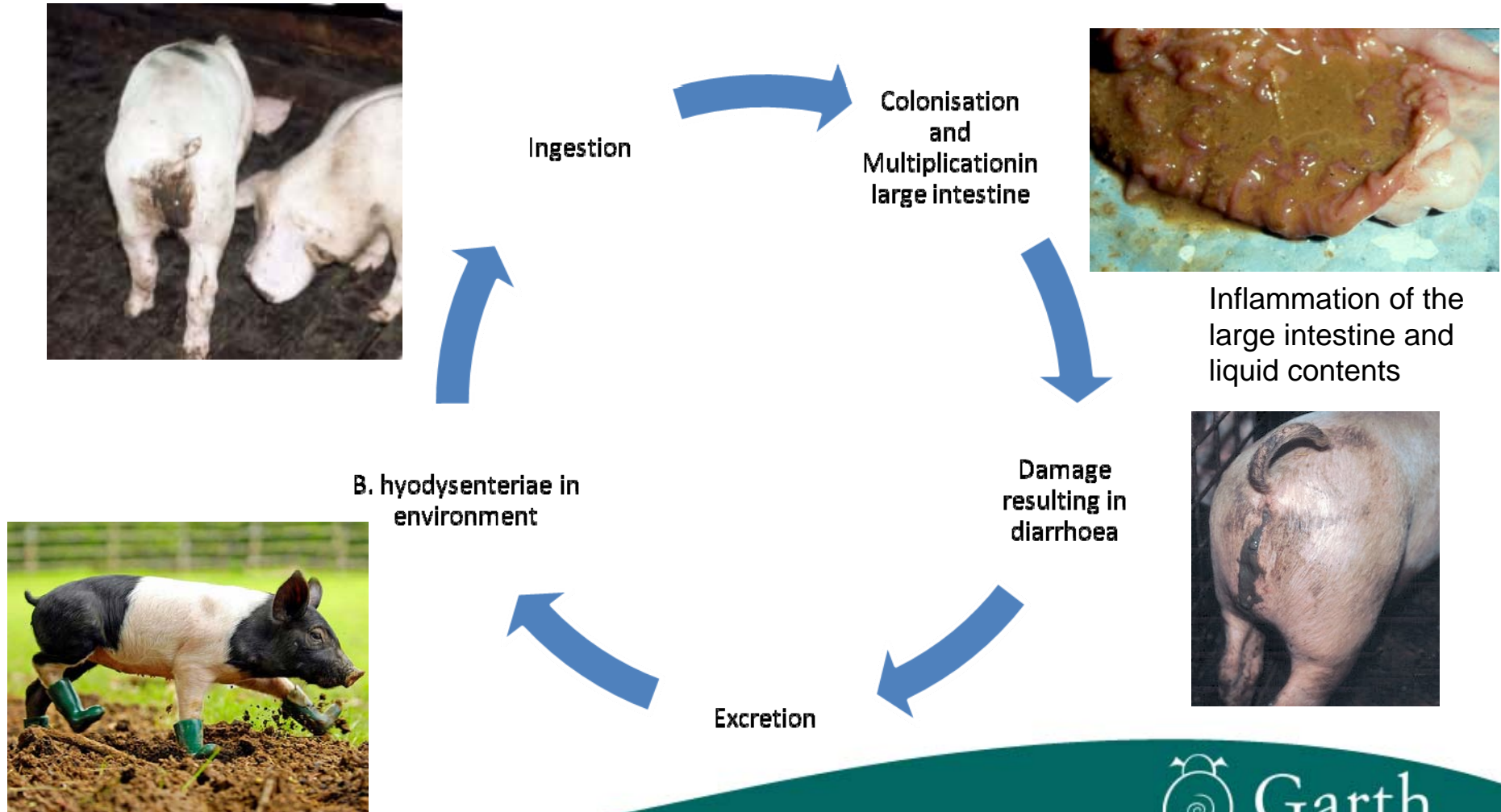
*B.hyodysenteriae* close up



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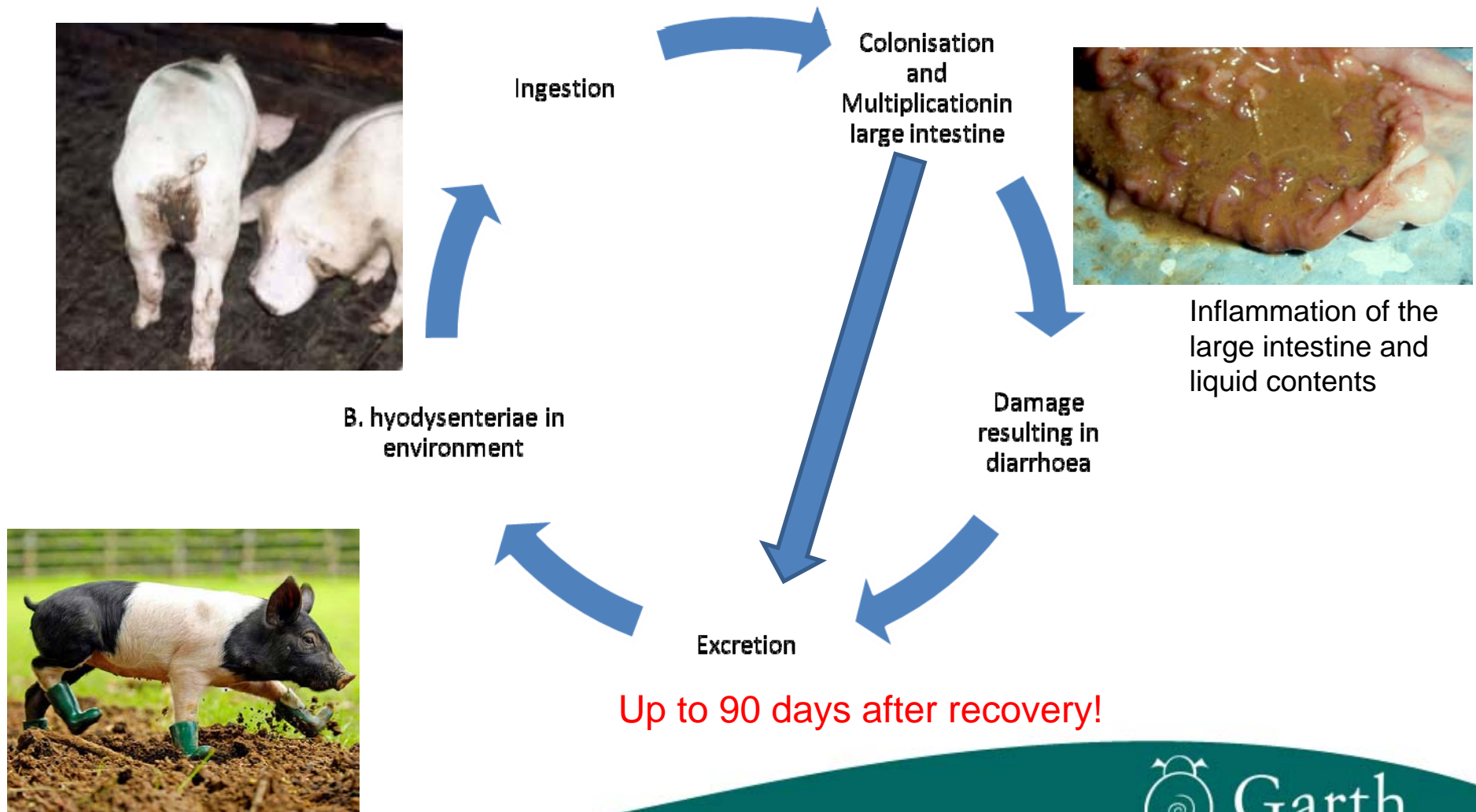
# What is Swine Dysentery?



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# What is Swine Dysentery?



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# What is Swine Dysentery?



| Temperature in °C | Environment     | Survival time |
|-------------------|-----------------|---------------|
| -80               | laboratory      | 10 years      |
| -20               | soil            | 41 days       |
| 5                 | Moist faeces    | 40 days       |
| 10                | soil            | 10 days       |
| 10                | Soil+pig faeces | 78 days       |
| 10                | Pig faeces      | 112 days      |
| 14                | soil            | 18 days       |
| 22                | soil            | 2 days        |
| 37                | soil            | <5 hours      |
| -                 | slurry          | 6 days        |

🕒 Ideal conditions

🕒 Moisture/wet conditions

🕒 Low temperatures

🕒 Mucky places



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# What is Swine Dysentery?

How to kill *B. hyodysenteriae*?

- 🕒 Thorough cleaning and disinfection
  - 🕒 Remove all organic matter
  - 🕒 Wash
  - 🕒 Dry
  - 🕒 Disinfect at correct concentration
- 🕒 Antibiotic treatment – increasing resistances!



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# What is Swine Dysentery?

## Importance

- 🕒 Poor health
    - 🕒 Dehydration (Mortality)
    - 🕒 Medication (~£4-5)
  - 🕒 Poor growth (-25g/day)
  - 🕒 Poor feed efficiency (+0.2)
- 

minimum **£ 10/pig**



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# How can Swine Dysentery enter a pig unit?

## Pigs

- 🕒 Replacement gilts
- 🕒 Boars
- 🕒 Weaners



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# How can Swine Dysentery enter a pig unit?

## Pigs

- 🕒 Replacement gilts
- 🕒 Boars
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## Vehicles

- 🕒 Livestock lorries
- 🕒 Dead stock lorry
- 🕒 Feed lorry
- 🕒 Semen delivery
- 🕒 post
- 🕒 Electrician
- 🕒 Private cars, motorbikes



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## Other Animals

- 🕒 Birds
- 🕒 Dogs
- 🕒 Vermin
- 🕒 Flies
- 🕒 Foxes, badgers



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# How can Swine Dysentery enter a pig unit?

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## Other Animals

- 🕒 Birds
- 🕒 Dogs
- 🕒 Rodents
- 🕒 Flies

## Man

- 🕒 Fomites
- 🕒 Staff
- 🕒 Lorry driver
- 🕒 Visitors (Vet, fieldsman, Scanner man, maintenance, electrician)
- 🕒 Family
- 🕒 Friends



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# How can Swine Dysentery enter a pig unit?

East Anglia 29 units affected

| Method                                    | %    |
|---|------|
| Pig Movement                              | 45   |
| Lorry (feed, straw, slaughter, dead pigs) | 21.5 |
| Management                                | 14.3 |
| Local Spread                              | 10.7 |
| Birds                                     | 7.1  |



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# What can you do about it?

## Affected pig producers

- 🕒 Get in contact with your vet!
  - 🕒 Diagnosis
  - 🕒 Possibly medication
- 🕒 Short term: Minimise spread
  - 🕒 On farm: Limit (movement of muck)
    - 🕒 Control pig movements, vehicles, people, fomites
  - 🕒 Off farm: Communication
- 🕒 Long term: Eradication



Keep footwear free of muck



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# What can you do about it?

## Pigs

- 🕒 Closed herd
- 🕒 Buy from reliable source (SD negative)
- 🕒 Single source
- 🕒 Communication to owner and vet-vet
- 🕒 Isolation (breeding stock)
  - 🕒 At least 3 weeks
  - 🕒 Vet-vet communication at end of isolation



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# What can you do about it?

## Vehicles

- 🕒 Keep them out!
- 🕒 Perimeter
- 🕒 Visitor, staff, maintenance car park outside perimeter
- 🕒 Good relationship with your hauliers
  - 🕒 Communicate health of unit
  - 🕒 Work out schedule to accommodate health
  - 🕒 Clean lorry
  - 🕒 Good working facilities

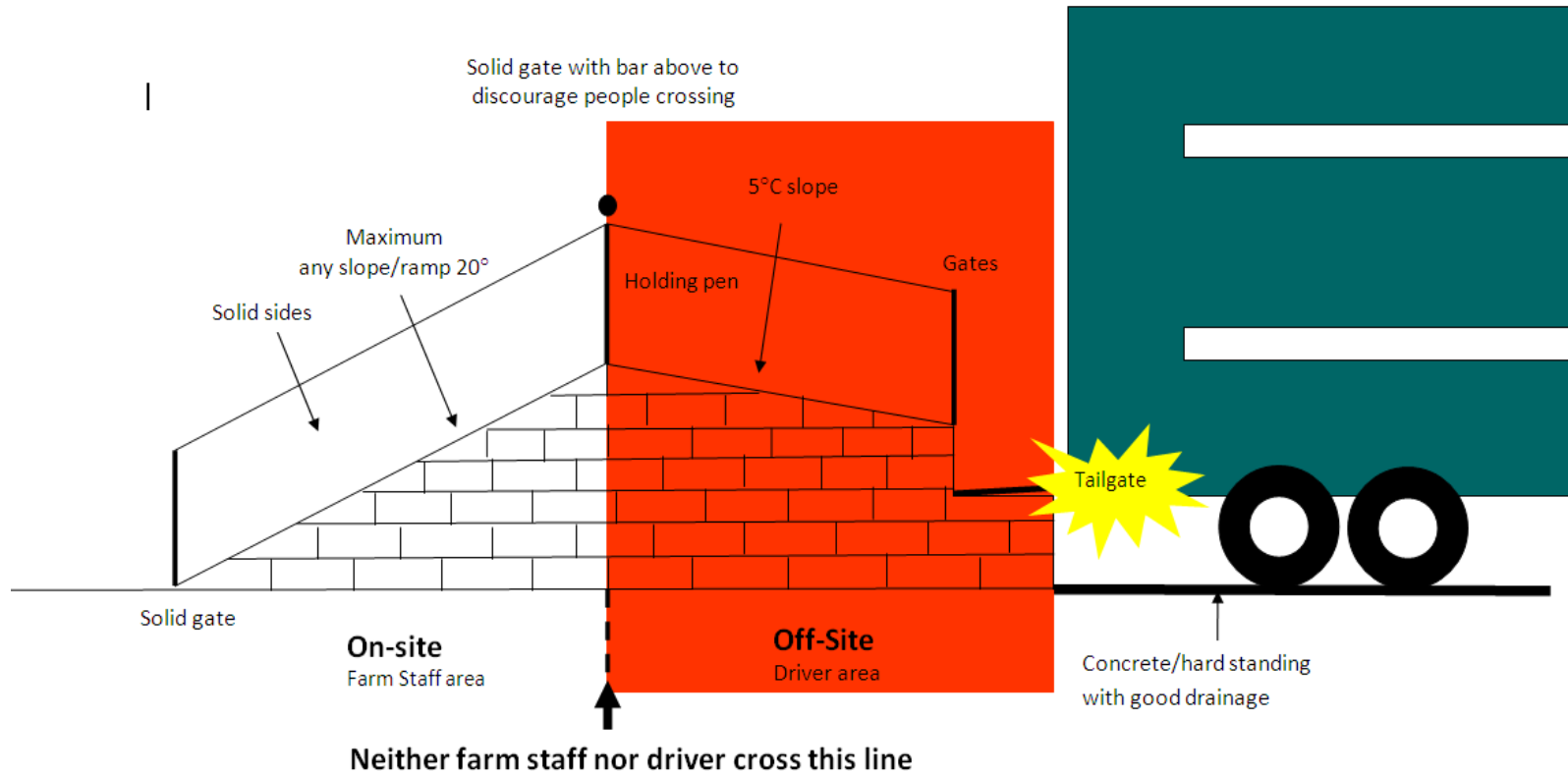


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# What can you do about it?

## Livestock lorries



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# What can you do about it?



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# What can you do about it?

## Abattoirs

- 🕒 Communication producer – abattoir
- 🕒 Understanding of abattoir as high risk location
- 🕒 SD pigs to arrive last
- 🕒 Communication between drivers
  - 🕒 Driver of SD lorry to act responsibly
  - 🕒 SD lorry to stay away from other lorries?
- 🕒 Appropriate cleaning and disinfection facilities



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# What can you do about it?

## Feed lorries

- 🕒 Bins at perimeter
- 🕒 Bagged feed at perimeter
- 🕒 If must enter farm
  - 🕒 Avoid crossover of vehicles with route pigs take
  - 🕒 wheel wash
  - 🕒 own blower pipes
  - 🕒 Inspect lorry and driver



## Dead stock lorry

- 🕒 Keep bin away from unit
- 🕒 Alternatively incinerator



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# What can you do about it?

## Vehicle delivering bedding

- 🕒 Load storage from outside perimeter

## Collection of muck

- 🕒 Ideally stock muck heap from one side (farm vehicle)
- 🕒 Collection from outside (external vehicle)

## Collection of slurry

- 🕒 Outside perimeter
- 🕒 Avoid slurry channel running from one house through other



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# What can you do about it?

## Man and fomites

- 🕒 NO contact with pigs from other units
- 🕒 NO contact with abattoirs
- 🕒 Separate clothing and BOOTS for farm and off-farm/private use
- 🕒 Strict rules for EVERYONE entering pig unit
  - 🕒 One entrance for people
  - 🕒 Foot dip on entrance
  - 🕒 **Equipment that has been on other pig units MUST be cleaned**
  - 🕒 Remove shoes, move to 'unit side', change into protective clothing and unit boots – enter pig unit
- 🕒 Visitors
  - 🕒 Respect rules



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# What can you do about it?

## Other Animals

- 🕒 Stop feeding them
  - 🕒 Avoid feed spillage
  - 🕒 Cover feed hoppers/bins/feed barrows
- 🕒 Stop giving vermin a home
  - 🕒 Keep unit tidy
  - 🕒 Maintain buildings
  - 🕒 Bird proof buildings
- 🕒 Rats roam up to 3-4 miles if hungry
- 🕒 Rats shed B hyo for 2 days
- 🕒 Mice shed B hyo for 180 days
- 🕒 Bait around perimeter
- 🕒 Carrier



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# What can you do about it?



Strengthen the chain by

- 🕒 Good communication and cooperation with
  - 🕒 Hauliers
  - 🕒 Abattoirs
  - 🕒 Neighbouring units
  - 🕒 Vets
- 🕒 Be a strong link
  - 🕒 Join PHIP and Swine Dysentery Charter



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# Summary Swine Dysentery

- 🕒 Bloody diarrhoea with mucous
- 🕒 Increasing antimicrobial resistance
- 🕒 Economically damaging
  
- 🕒 Spreads in faecal material
  - 🕒 Control pigs movements
  - 🕒 Any vehicle in contact with pigs
  - 🕒 Any person in contact with pigs
  - 🕒 Any animals in contact with pigs
  
- 🕒 Eradication can be done – East Anglia



# No Question



## We can do this if we work together!



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