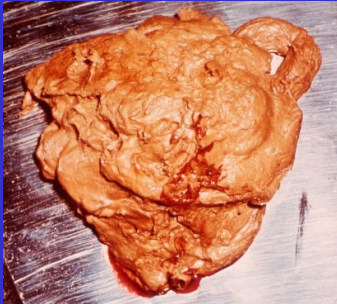


PARA3002 TUTORIAL

POOP QUIZ



1

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1. Name 3 modes of transmission used by parasites.

- vector-borne
 - **faecal-oral**
 - **predator-prey**
 - direct (venereal)
 - transplacental
 - transmammary
- horizontal
- vertical

2

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2. How many times have you defecated in the last week?

Natural activity!
(do it or die!)

- 1-4
- 5-8
- 9-12
- 13-16
- 17+

what is
'normal'?

3

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3. List 10 vernacular names for faeces?

Very much entrenched in human language

But can be a taboo/distasteful topic

- poo, shite, number twos, pat, stool, dung, droppings, turd, crap, brown mullet, etc....

4

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4. List 5 physical characteristics of faeces.








- weight/volume (frequency)
- appearance (form, consistency)
- colour (green-brown-black)
- contents (blood, corn, seeds,...)
- odour (gaseous by-products)

cf. senses (sight, sound, smell, touch, taste)

5

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Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on the surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. Entirely Liquid

6

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5. List 5 chemical characteristics of faeces.

- carbon (C) biomass
 - hydrogen (H) metabolites [pH]
 - oxygen (O) metabolites
 - nitrogenous (N) metabolites
 - phosphorus (P) metabolites
 - electrolytes (salts)
- } hydro-carbons

7

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6. List five biological entities you may find in faeces?

- viruses
 - bacteria
 - fungi
 - protozoa
 - helminths
- smallest (10 nm)
- ↓
- largest (10 m)

9 orders of magnitude

8

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7. Name three protozoan parasites transmitted by faeces?

- *Entamoeba*
 - *Giardia*
 - *Balantidium*
- } cysts
- *Eimeria/Cryptosporidium*
- } oocysts

9

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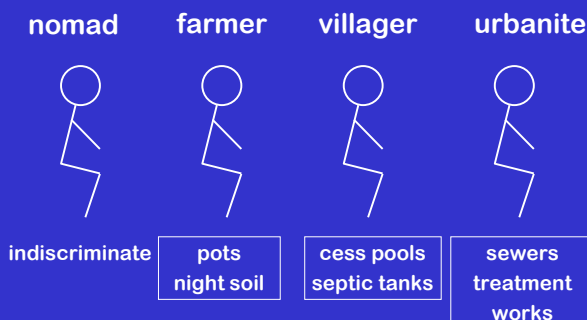
8. Name two nematode parasites transmitted by faeces?

- *Enterobius*
 - *Trichuris*
 - *Ascaris*
- } eggs
- *Strongyloides*
 - *Ancylostoma/Necator*
- } larvae

10

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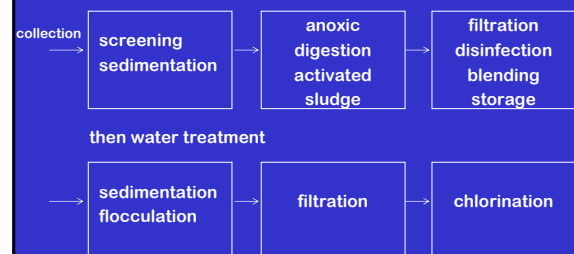
9. History of faecal collection



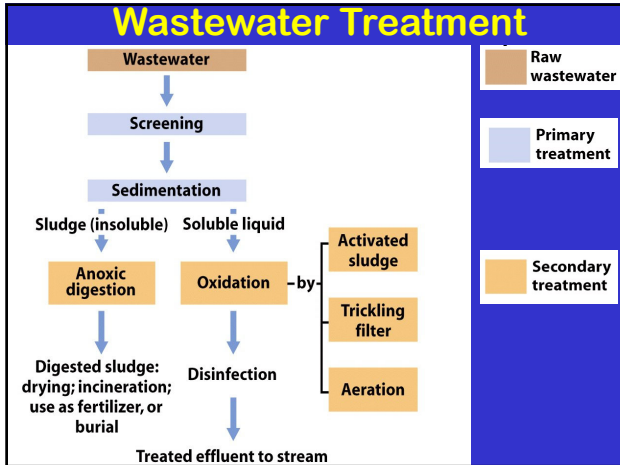
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10. Sewage treatment



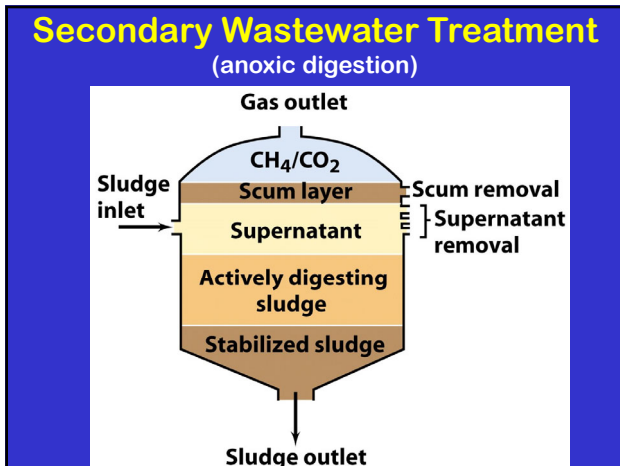
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13



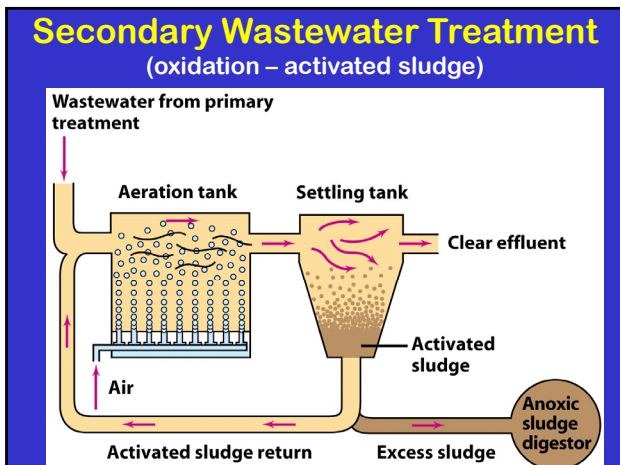
14



15



16



17



18

Wastewater Treatment

biological reactor destroys and removes most:

- solids, organic matter
- regulated chemicals
- some micro-organisms



• screening, settling and BNR (biological nutrient removal) which reduces nutrients (nitrogen, some phosphorus)

- quality suitable for outdoor irrigation (e.g. golf courses)

19

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DO
NOT
EAT
POO!

20