## FloryBoost pet

## Gut conditioner For dogs and cats







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#### FloryBoost target



- Gut conditioner for cats and dogs
  - Helps to prevent diarrhea
  - Supplement medical therapy in case of diarrhea
  - ★ For dogs and cats of all ages







### FloryBoost uses



Sudden feed transition



Feed borne diarrhea prevention



Young pets that belongs to a sick litter Pets in contact with sick pet





- Gut protection
  - ★ Wound dressing effect
  - ★ Toxins adsorption
  - Alleviates pain



- Helps to maintain electrolytes balance:
  - ★ Electrolytes
  - ★ Osmolytes



- Supports gut microflora
  - Brings energy
  - Brings prebiotics and probiotics







Gut protection:



Montmorillonite clay (Bentonite)



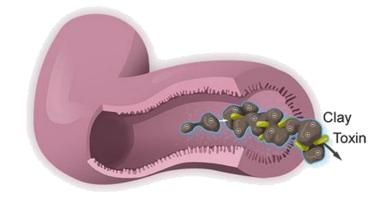
Natural charcoal

- > Toxins and pathogens adsorption
- > Wound dressing effect





- Gut protection: toxins adsorption
  - \* bentonite
    - = Montmorillonite clay
      - Very high adsorption capacity» 15 x than Kaolin
  - ★ Vegetable charcoal
    - Very high capacity of adsorption
      - »  $1g \Rightarrow 400 \text{ to } 2500 \text{ m}^2 \text{ of surface area adsorption}$
      - » Decrease risk of enterotoxaemia



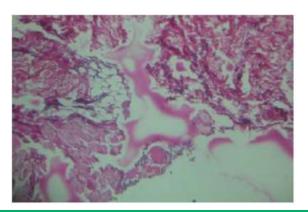




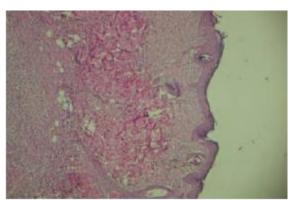
- Gut protection: bentonite
  - = Clay Montmorillonite
  - Cover the gut wall (protective layer)

Microscopic observations of skin wounds Higher speed of reepithelialization in the bentonite group.

Control group



Bentonite group



Emami-Razavi, 2006

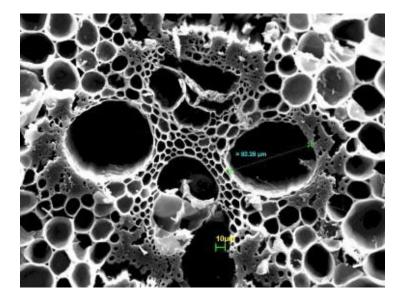


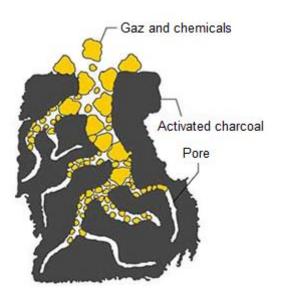


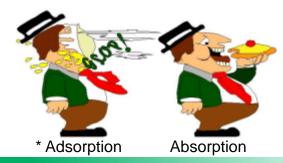
Gut protection: wood charcoal

★ Super adsorbant\*

Charcoal structure









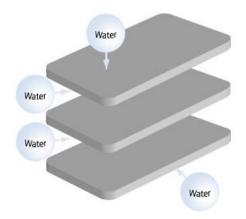


- Intestinal transit control
  - Water absorption
    - Mucilage (carob)
      - Substance that absorbs water and make a gel



Mucilage

Bentonite



Bentonite inflation with water



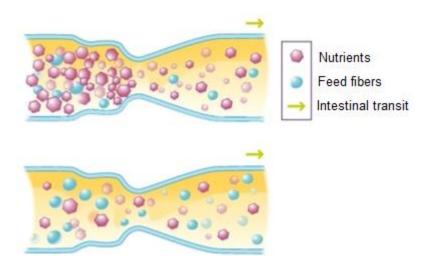


Intestinal transit control

#### **K** Fibers:

Non digestible part of vegetable





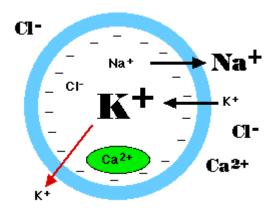




#### Intestinal transit control

#### ★ Electrolytes:

- Soluble salts that turn into ions in water
- Relative abundance of ions in each body compartment (intracellular / extracellular) allow cell function (information and nutrients exchanges)
- NaCl: sodium chloride
- MgCl: magnesium chloride
- KCI: potassium chloride



Ion concentration in body



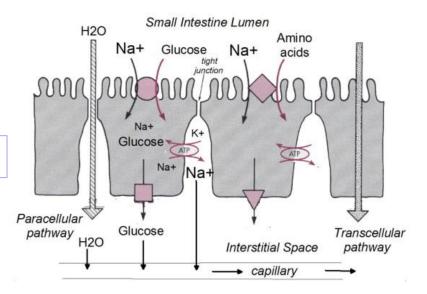


Intestinal transit control

#### ★ Osmolytes:

- Organic molecules
- Helps to normalize water exchanges
- Low energetic cost
- Glucose

Supply of osmolytes makes water and electrolytes absorption through enterocytes easier



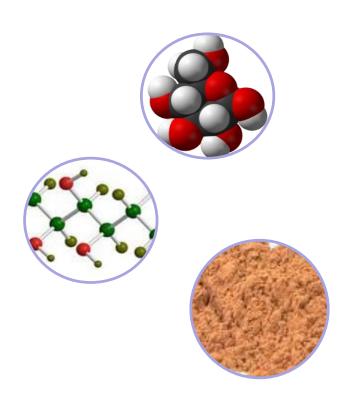




Intestinal microflora restoration

#### ★ Energy

- » Carbohydrate pathway
- Dextrose
- Carob flour
  - Glucose and sucrose







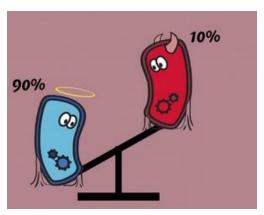
Intestinal microflora restoration

#### Prebiotics

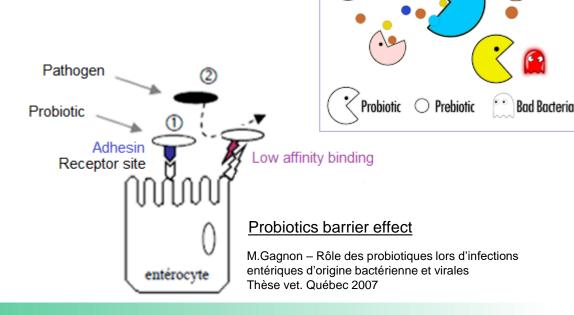
- Short chain FOS (fructo-oligosaccharides)
  - Selective stimulation of colon bacteria (growth and activity)
- Fibers
  - Carob flour

#### Probiotics:

Enterococcus faecium



http://www.plusvet.eu/



### FloryBoost packaging



- Adjustable 15 ml syringe
  - Ready to use product
  - ★ Gel (no leakage)
  - Easy to dose (adjustment ring on plunger)
  - Appetizing (roasted meat aroma)









#### Direction for use



- Timing:
  - Per day:
    - 1 dose as soon as possible
    - Renew within the day
  - Administer orally for 3 days or according to your specialist advice
- Dose:
  - ★ Cats and toy and small dogs (<10 kg BW): 2ml per dose (4 ml per day)
    </p>
  - Medium dogs (11-25kg BW): 4ml per dose (8 ml per day)
  - ★ Tall dogs (26-40 kg BW): 6ml per dose (12 ml per day)
  - Giant dogs (>40kg BW): 8ml per dose (16 ml per day)
- Double the dose in case of severe diarrhea

Puppy	Dog	
Kitten	Cat	

## Taking home message FloryBoost pet



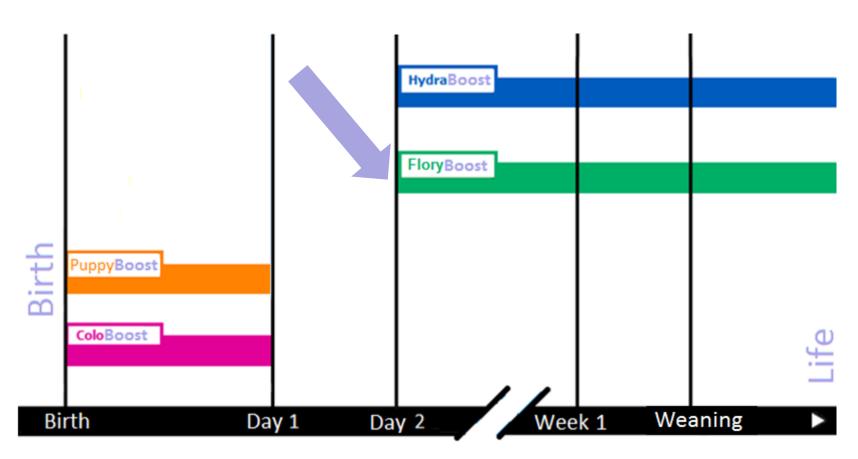
- Gut conditioner for cats and dogs
- A ready to use syringe to
  - ★ Helps to prevent diarrhea
  - Supplement medical therapy in case of diarrhea
  - ★ For dogs and cats of all ages





### Puppy program







## Puppy program About diarrhea



- FloryBoost Pet
  - ★ Gut conditioner
  - ★ When?
    - Moderate to high risk of diarrhea
    - In addition to medical treatment

- HydraBoost Pet
  - **K** Rehydrating
  - ★ When?
    - During diarrhea episode
      - To prevent dehydration
      - To recover from dehydration





## FloryBoost pet

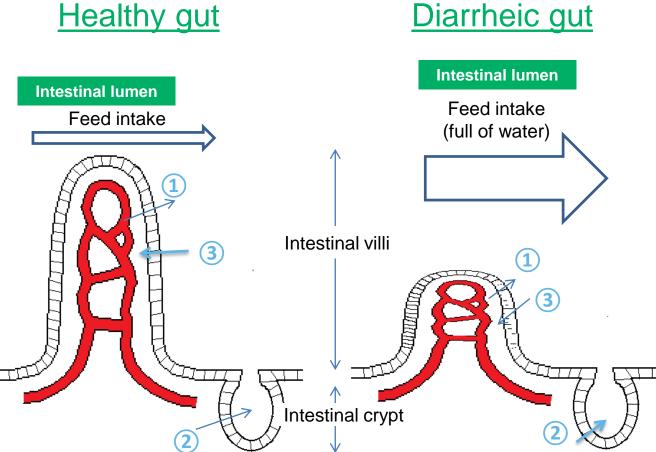
Thank you for your attention!





# To know more ... Diarrhea physiopathology







# To know more ... Diarrhea physiopathology



#### 1. In healthy gut:

- Normal feed intake moving
- **Mater movement toward intestinal lumen :** 
  - Through villi intercellular channel thanks to osmotic gradient (osmotic pressure stronger in lumen than in blood)
  - Through crypt cells: chloride secretion (pump), drawing sodium (electric gradient) and then water (osmotic gradient)
- **Mater movement from intestinal lumen:** 
  - Amino-acids and carbohydrates are absorbed, drawing water (trough villi cells)



# To know more ... Diarrhea physiopathology



#### 2. In diarrheic gut:

- ★ Faster feed intake moving
- ★ Villi abrasion (thanks to pathogens and fast water movement )
- ★ Water movement toward intestinal lumen increased :
  - Quite unchanged: through villi intercellular channel thanks to osmotic gradient
  - Increased: Through crypt cells: chloride secretion is increased thanks to toxin action (*E.Coli* ...), drawing sodium (electric gradient) and then water (osmotic gradient) => water oversecretion
- Water movement from intestinal lumen decreased :
  - Absorption area decreased => less water absorption

