

AIDS FOR

# DIGESTIVE BALANCE

## PROBIOTICS

Beneficial bacteria that promote intestinal microbial balance.

### KEY BENEFICIAL BACTERIA

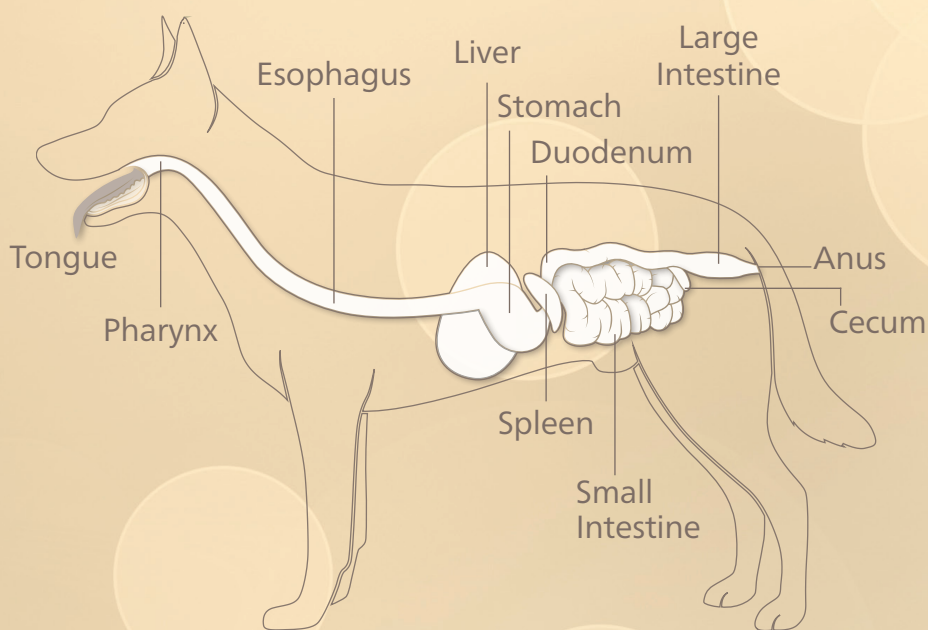
*Lactobacillus acidophilus* increases the amounts of healthy bacteria.

*Enterococcus faecium* competes for resources that harmful bacteria would otherwise consume.

*Bacillus subtilis* supports the production of beneficial enzymes in the gut.

*Bifidobacterium animalis* multiplies its number, leaving little or no room for harmful bacteria.

### DIGESTIVE SYSTEM OF A DOG



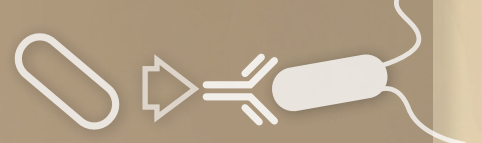
### How Probiotics Work

**A.** Competition for Nutrients



**B.** Blocking of Adhesion Sites

**C.** Immune Stimulation



**D.** Direct Antagonism antimicrobial agent (e.g., bacteriocin)



## PREBIOTICS

A type of fiber that induces the growth or activity of beneficial bacteria.

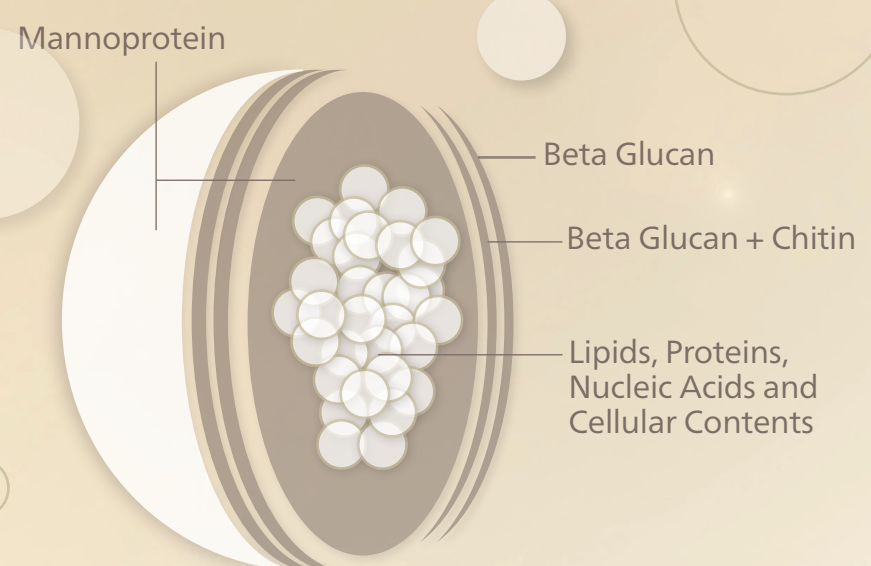
### MANNAN-OLIGOSACCHARIDES

Mannan-oligosaccharides are complex carbohydrates derived from *Saccharomyces cerevisiae*.

Mannan-oligosaccharides have been shown to reduce fecal *E. coli* and *C. perfringens*, and dogs tended to have greater concentrations of lactobacilli and bifidobacteria. [\[30\]](#)[\[31\]](#)[\[32\]](#)

Mannan-oligosaccharides have beneficial effects on immune status, colonic health and stool quality.

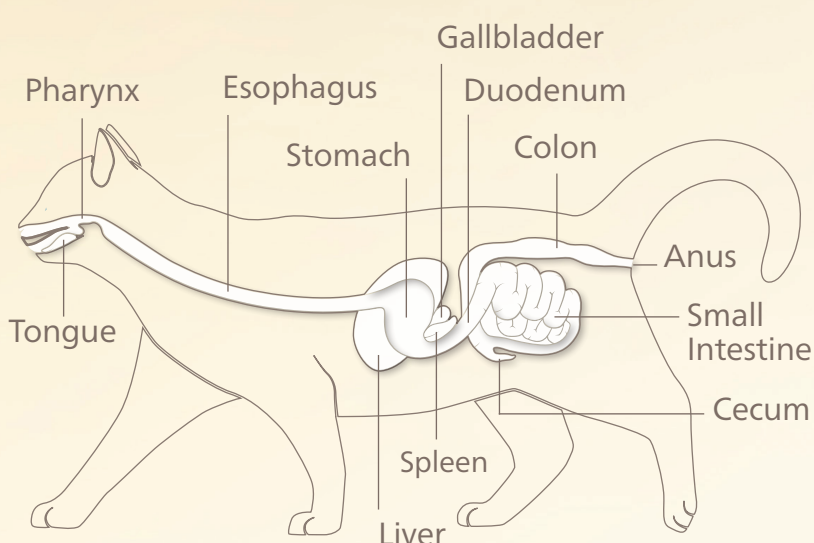
### YEAST CELL STRUCTURE



## EXOGENOUS ENZYMES

An integral part of the digestive process, enzymes break down food to enable absorption and utilization by the body.

### DIGESTIVE SYSTEM OF A CAT



### KEY ENZYMES

**Protease** helps digest protein.

**Amylase** helps digest carbohydrates and starches.

**Lipase** helps digest fat.

**Cellulase** helps break down fiber.



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