

Review March 2025

Microorganisms used as probiotics in animal diets and are suitable for use in animal fed
Aspergillus <i>oryzae</i> <i>niger</i>
Bacillus <i>amyloliquefaciens</i> <i>cereus</i> <i>coagulans</i> <i>lentus</i> <i>licheniformis</i> <i>megaterium</i> <i>mesentericus</i> <i>polymyxa</i> <i>pumilus</i> <i>subtilis</i> <i>thuringiensis</i> <i>toyonensis</i>
Bacteriodes <i>amylophilus</i> <i>capillosus</i> <i>ruminocola</i> <i>sius</i>
Brevibacillus <i>laterosporus</i>
Bifidobacterium <i>adolescentis</i> <i>animalis</i> <i>bifidium</i> <i>bifidius</i> <i>thermophilus</i> <i>longum</i> <i>pseudolongum</i> <i>infantis</i> <i>lactis</i>

Candida <i>pintolepesii</i> <i>utilis</i>
Clostridium <i>buytricum</i>
Coriobacteriaceae <i>novus</i>
Corynebacterium <i>ammoniagenes</i> <i>casei</i> <i>flavescens</i> <i>variabile</i>
Cyberlindnera <i>jadinii</i>
Eschericia <i>coli</i>
Enterococcus <i>faecium</i> <i>cremoris</i> <i>diacetylactis</i> <i>intermedius</i> <i>lactis</i> <i>thermophilus</i> <i>faecalis</i>
Lactobacillus <i>thermophilus</i> <i>acidophilus</i> <i>brevis</i> <i>buchneri</i> <i>bulgaricus</i> <i>casei</i> <i>cellobiosus</i> <i>curvatus</i> <i>delbrueckii subspecies bulgaricus</i> <i>diolivorans</i> <i>farciminis</i> <i>fermentum</i> <i>helveticus</i> <i>jensenii</i> <i>kefiranofaciens M1</i> <i>kefiri</i>

<i>paracasei</i> <i>plantarum</i> <i>plantarum</i> LP 28 <i>reuterii</i> <i>rhamnosus</i> <i>lactis</i> <i>salivarius</i> <i>sobrius</i> <i>gallinarum</i>
Lactococcus <i>lactis</i>
Leuconostoc <i>mesenteriodes</i>
Megaspaera <i>elsdenii</i>
Pediococcus <i>acidilactici</i> <i>cerevisiae</i> (<i>damnosus</i>) . <i>parvulus</i> <i>pentosaceus</i>
Prevotella <i>shermanii</i> <i>freudenreichii</i> <i>acidipropionici</i> <i>jensenii</i>
Propionibacterium <i>acidipropionici</i> <i>freudenreichii</i> <i>shermanii</i>
Rhodopseudomonas <i>palsustria</i>
Rhizopus <i>oryzae</i> <i>microsporus</i> <i>oligosporus</i> <i>stolonifera</i>
Saccharomyces <i>bourlrdii</i> <i>cerevisiae</i> <i>servisia</i>

<i>Streptococcus</i> (<i>Streptococcus</i> = <i>Enterococcus</i>) <i>cremoris</i> <i>diacetylactis</i> <i>faecalis</i> <i>faecium</i> <i>gallolyticus</i> <i>intermedius</i> <i>salivarius subsp. thermophilus</i> <i>bovis</i> <i>lactis</i>
<i>Trichosporon</i> <i>mycotoxinivorans</i>
<i>Yeast</i> <i>Debaryomyces</i> <i>Galactomyces</i> <i>Hanseniaspora</i> <i>Hansenula</i> <i>Isaatchenkia</i> <i>Pichia</i>
<i>Fungal</i> <i>Geotrichum</i> <i>Penicillium</i> <i>Aspergillus</i>

Note:

1. Bacterial starter cultures in general more than 10^8 CFU/g or CFU/ml are added to the fermentation substrate and bring about desirable metabolic reactions
2. Yeast starter culture in general more than 10^8 CFU/g or CFU/ml are added to bring about a desirable metabolic reaction
3. Fungal starter culture in general more than 10^8 CFU/g or CFU/ml are added to bring about a desirable metabolic reaction

Reference:

1. Food and Agriculture Organization of the United Nations: FAO Animal Production and Health, Probiotic in Animal Nutrition
2. Direct-fed Microbial, Enzyme & Forage Additive Compendium: The Regulatory Environment
3. Food and Drug Administration, Center for Veterinary Medicine
4. *The use of probiotics in animal nutrition, Journal Prob Health* 2015, 3:2
5. Food fermentation: microorganisms with technological beneficial use, *International Journal of Food Microbiology*, 2012, 154:87-97