

Supplement Materials:

Table S1. Food sources of each *Bacillus* strain.

Species	Strain	Origin	Sampling site
B. cereus	CAU475	Milk	Beijing
	CAU476		
	CAU477		
	CAU478		
	CAU479	Milk	
	CAU480		
	CAU481	Milk	
	CAU482		
	CAU483		
	CAU484	Milk	
	CAU485		
	CAU486	Milk	
	CAU487		
	CAU491	Cheese	Inner Mongolia
	CAU492		
	CAU494	Fermented bean curd	Beijing
	CAU504	Mooncake	
	CAU505		
	CAU506	Mooncake	
	CAU507		
	CAU508	Tofu	Hebei
	CAU509		
	CAU519	Xiandou cake	Beijing
	CAU520	Donkey Rolling	
	CAU522	Peach kernel muffin	
	CAU523	Cereal cake	
	CAU525	Steamed bun	
	CAU526	Bean paste cake	
	CAU527	Baked wheaten cake	
B. licheniformis	CAU529	Crispy sesame cake	America
	CAU488	Dried jujube milk	
	CAU489	Grape milk beans	
	CAU495	Mustard for student	
	CAU511	Probiotics for pets	America
	CAU512		
	CAU514	Veterinary probiotics	Jiangxi

	CAU515	Animal feed additive	Henan
	CAU516	Animal feed additive	
B. subtilis	CAU490	Bangbang cheese	Beijing
	CAU496	Pickled pickles	
	CAU501	Ham	Zhejiang
	CAU502	Cake	Beijing
	CAU503	Cake	
	CAU517	Animal feed additive	Henan
	CAU518	Veterinary probiotics	
B. pumilus	CAU493	Fermented bean curd	Beijing
	CAU497	Pickles	
	CAU498	Pickles	
	CAU499	Pickles	
	CAU500	Pickles	
B. amyloliquefaciens	CAU524	Shortening cake	Jiangxi
	CAU513	Aquatic Probiotics	
B. taeanensis	CAU521	Donkey Rolling	Beijing
B. velezensis	CAU510	Probiotics for pets	Henan
Paenibacillus cookii	CAU528	Jujube cake	Beijing

Note: donkey rolling is a Beijing specialty pastry.