Ready Reference

Introduced Traits RR08

Trait	*Description and subcategories*

Resistance to diseases and pests	• Bacteria
	  ○ *Pseudomonas syringae*
	• Fungi
	• Insects
	  ○ Coleoptera (beetles)
	  ▪ Colorado potato beetle (*Leptinotarsa decemlineata*)
	  ▪ Western corn rootworm (*Diabrotica virgifera*)
	  ▪ Northern corn rootworm (*Diabrotica barberi*)
	  ○ Diptera (flies)
	  ▪ Hessian fly (*Mayetiola destructor*)
	  ○ Lepidoptera (butterflies and moths)
	  ▪ Cotton bollworm (*Helicoverpa* spp.)
	  ▪ European corn borer (*Ostrinia nubilalis*)
	  ▪ Fall armyworm (*Spodoptera frugiperda*)
	• Nematodes
	• Prions
	• Viroids
	• Viruses
	  ○ Beet necrotic yellow virus (BNYV)
	  ○ Mosaic virus
	  ▪ Cucumber mosaic virus (CMV)
	  ▪ Watermelon mosaic virus-2 (WMV2)
	  ▪ Zucchini yellow mosaic virus (ZYMV)
	  ○ Papaya ringspot virus (PRV)
	  ○ Potato leaf roll virus (PLRV)
	  ○ Potato virus Y (PVY)
	• Other

Trait	*Description and subcategories*
Resistance to herbicides	• Bromoxynil • Chlorsulfuron • Glufosinate • Glyphosate • Imidazolinone • Sethoxydim • Sulfonylurea • other
Resistance to antibiotics	• Ampicillin • Chloramphenicol • Hygromycin • Kanamycin • Neomycin • Streptothricin • Streptomycin • Tetracycline • Other
Tolerance to abiotic stress	• Aluminum • Cold / Heat • Drought • Micronutrient deficiency • Nitrogen deficiency • Phosphorus deficiency • Potassium deficiency • Salinity • Other

Changes in physiology and/or production	• Growth rate
	• Photoperiod response
	• Reproduction
	  ○ Genetic use restriction technology (GURT)
	  ○ Male sterility
	• Ripening
	• Yield
	• Other

Trait	*Description and subcategories*
Changes in quality and/or metabolite content	• Allergens • Amylose and amylopectin ratio • Antioxidants • Carbohydrates • Cellulose • Flavonoids (e.g. anthocyanin) • Lignin • Lipid and fatty acids • Lysine content • Pigmentation / Coloration • Protein and amino acids • Shelf-life • Vitamins • Other
Production of medical or pharmaceutical compounds (human or animal)	• Antibiotics • Antibodies and antigens • Antithrombin • Human growth hormone • Human serum albumin • Insulin • Organs (xenotransplantation) • Omega-3 fatty acids (e.g., DHA) • Vaccines • Other
Use in industrial applications	• Biofuel production • Bioremediation • Other
Engineered gene drive application	• Population suppression • Population replacement • Other