

Supplementary File 2: Cash crops, Food crops, and Gymnosperms

CASH CROP PATHOGENS

SPECIES	Significance	Classification	Genome
		PHYLUM	Accession
Ashbya gossypii	plant pathogen (insect-associated; cotton)	Ascomycota	Gp0000589
Ceratocystis adiposa	plant pathogen (black root in sugar cane)	Ascomycota	Gp0149937
Colletotrichum falcatum	plant pathogen (sugar-cane red rot)	Ascomycota	Gp0124244
Colletotrichum phormii	plant pathogen (anthracnose on flax)	Ascomycota	Go0111565
Colletotrichum simmondsii	plant pathogen (safflower oil crop)	Ascomycota	Gp0122385
Phoma herbarum	plant pathogen (hop & hemp)	Ascomycota	Gp0144010
Sporisorium scitamineum	plant pathogen (sugarcane); smut	Basidiomycota	Gp0118304
Verticillium longisporum	plant pathogen (canola)	Ascomycota	Gp0143280

GYMNOSPERM PATHOGENS

SPECIES	Significance	Classification	Genome
		PHYLUM	Accession
<i>Aplosporella prunicola</i>	probable tree pathogen	Ascomycota	Gp0019419
<i>Armillaria ostoyae</i>	plant pathogen; conifer root rot (parasitic or saprophytic)	Basidiomycota	
<i>Botryosphaeria dothidea</i>	plant pathogen (broad host range of trees and shrubs)	Ascomycota	Gp0038455
<i>Caloscypha fulgens</i>	plant pathogen (seed rot of conifers)	Ascomycota	
<i>Ceraceosorus bombacis</i>	plant pathogen (lumber tree); smut	Basidiomycota	Gp0143854
<i>Ceraceosorus</i> sp.	plant pathogen (lumber tree); smut	Basidiomycota	Gp0095870
<i>Ceratocystis albifundus</i>	plant pathogen (woody & herbaceous)	Ascomycota	Gp0109102
<i>Ceratocystis eucalypticola</i>	probable plant pathogen (eucalyptus)	Ascomycota	Gp0121626
<i>Ceratocystis platani</i>	plant pathogen (trees)	Ascomycota	Gp0117548
<i>Chrysoporthe austroafricana</i>	plant pathogen (eucalyptus, Tibouchina, Syzygium)	Ascomycota	Gp0146002
<i>Chrysoporthe cubensis</i>	plant pathogen (eucalyptus, Tibouchina, Syzygium)	Ascomycota	Gp0117564
<i>Chrysoporthe deuterocubensis</i>	plant pathogen (eucalyptus, Tibouchina, Syzygium)	Ascomycota	Gp0117565
<i>Colletotrichum salicis</i>	plant pathogen (black canker of willow)	Ascomycota	Gp0090026
<i>Cronartium comandrae</i>	plant pathogen; rust fungus (pine)	Basidiomycota	Gp0038527
<i>Cronartium quercuum</i>	plant pathogen; rust fungus (fusiform rust of pine)	Basidiomycota	Gp0004798
<i>Cronartium ribicola</i>	plant pathogen; rust fungus (pine)	Basidiomycota	Gp0038568
<i>Cryphonectria parasitica</i>	plant pathogen (chestnut blight)	Ascomycota	Gp0002604
<i>Diplodia pinea</i>	plant pathogen (pines)	Ascomycota	Gp0093398
<i>Diplodia scrobiculata</i>	plant pathogen (conifer spp.)	Ascomycota	Gp0143864
<i>Endocronartium harknessii</i>	plant pathogen; rust fungus (pine-pine gall rust)	Basidiomycota	Gp0038528
<i>Fusarium circinatum</i>	plant pathogen (pitch canker of pines)	Ascomycota	Gp0005151
<i>Grosmannia clavigera</i>	plant pathogen; blue stain	Ascomycota	Gp0002583
<i>Heterobasidion annosum</i>	plant pathogen (conifers)	Basidiomycota	Gp0093680
<i>Heterobasidion irregulare</i>	plant pathogen (conifers and hardwoods)	Basidiomycota	Gp0002642
<i>Hymenoscyphus fraxineus</i>	plant pathogen (ash dieback)	Ascomycota	Gp0124450
<i>Lecanosticta acicola</i>	plant pathogen (pine)	Ascomycota	Gp0047147
<i>Leptographium procerum</i>	plant pathogen (pine)	Ascomycota	Gp0107386
<i>Marssonina brunnea</i>	plant pathogen (poplar leaf spot)	Ascomycota	Gp0038386
<i>Melampsora allii-populina</i>	plant pathogen; rust fungus (poplar)	Basidiomycota	Gp0047015
<i>Melampsora larici-populina</i>	plant pathogen (poplar); rust fungus	Basidiomycota	Gp0002503
<i>Melampsora pinitorqua</i>	plant pathogen (pine twisting rust); rust fungus	Basidiomycota	Gp0038564
<i>Mycosphaerella laricina</i>	plant pathogen (larch)	Ascomycota	Gp0047149
<i>Mycosphaerella pini</i>	plant pathogen (pine)	Ascomycota	Gp0017021
<i>Ophiostoma novo-ulmi</i>	plant pathogen (Dutch Elm Disease)	Ascomycota	Gp0038489
<i>Phellinus noxius</i>	plant pathogen (broad host range, typically trees)	Basidiomycota	Gp0070880
<i>Porodaedalea chrysoloma</i>	plant pathogen (conifer parasite; white pocket rot)	Basidiomycota	Go0033091
<i>Porodaedalea niemelaei</i>	plant pathogen (conifer white rot)	Basidiomycota	Go0072274
<i>Setomelanomma holmii</i>	plant pathogen (spruce needle drop)	Ascomycota	Gp0036261
<i>Sphaerulina musiva</i>	plant pathogen (poplar)	Ascomycota	Gp0008704
<i>Sphaerulina populicola</i>	plant pathogen (poplar)	Ascomycota	Gp0048413
<i>Taphrina populina</i>	plant pathogen (cottonwood)	Ascomycota	Gp0124247
<i>Teratosphaeria nubilosa</i>	plant pathogen (leaf spot of <i>Eucalyptus</i>)	Ascomycota	Gp0036290
<i>Thielaviopsis paradoxa</i>	plant pathogen (palm)	Ascomycota	Gp0144032

FOOD CROP PATHOGENS

SPECIES	Significance	Staple crop?	Classification	Genome
			PHYLUM	Accession
Grains				
<i>Bipolaris maydis</i>	plant pathogen (wheat)	x	Ascomycota	Gp0003183
<i>Bipolaris oryzae</i>	plant pathogen (rice)	x	Ascomycota	Gp0010035
<i>Bipolaris sorokiniana</i>	plant pathogen (cereals)	x	Ascomycota	Gp0004797
<i>Bipolaris victoriae</i>	plant pathogen (blight of oats)	x	Ascomycota	Gp0010034
<i>Bipolaris zeicola</i>	plant pathogen (sorghum, maize and apple)	x	Ascomycota	Gp0010036
<i>Blumeria graminis</i>	plant pathogen (mildew on grasses and cereals)	x	Ascomycota	Gp0038457
<i>Cercospora zeae-maydis</i>	plant pathogen (maize); toxin-producing	x	Ascomycota	Gp0002172
<i>Claviceps fusiformis</i>	plant pathogen (pearl millet)	x	Ascomycota	Gp0038970
<i>Claviceps purpurea</i>	plant pathogen (cereals)	x	Ascomycota	Gp0038662
<i>Cochliobolus lunatus</i>	plant pathogen (sorghum); pharmaceutical importance	x	Ascomycota	Gp0039341
<i>Colletotrichum graminicola</i>	plant pathogen (anthracnose in cereals)	x	Ascomycota	Gp0004788
<i>Colletotrichum sublineola</i>	plant pathogen (anthracnose in wild rice and sorghum)	x	Ascomycota	Gp0094476
<i>Fusarium acuminatum</i>	plant pathogen (cereals)	x	Ascomycota	Gp0043378
<i>Fusarium avenaceum</i>	plant pathogen (generalist, including grain crops)	x	Ascomycota	Gp0143156
<i>Fusarium equiseti</i>	plant pathogen (members of the Leguminosae and some cereals)	x	Ascomycota	Gp0044229
<i>Fusarium fujikuroi</i>	plant pathogen (rice)	x	Ascomycota	Gp0039409
<i>Fusarium graminearum</i>	plant pathogen (wheat and barley)	x	Ascomycota	Gp0086804
<i>Fusarium nygamai</i>	plant pathogen (rice)	x	Ascomycota	Gp0124341
<i>Fusarium pseudograminearum</i>	plant pathogen (wheat)	x	Ascomycota	Gp0043380
<i>Fusarium temperatum</i>	plant pathogen (maize); opportunistic human pathogen	x	Ascomycota	Gp0093049
<i>Fusarium verticillioides</i>	plant pathogen (maize)	x	Ascomycota	Gp0002615
<i>Gaeumannomyces graminis</i>	plant pathogen (root rot of cereals)	x	Ascomycota	Gp0005124
<i>Magnaporthe oryzae</i>	plant pathogen (rice)	x	Ascomycota	Gp0039276
<i>Melanconium</i> sp. 1 NRRL 54901	plant pathogen (probable maize pathogen)	x	Ascomycota	Gp0019267
<i>Parastagonospora nodorum</i>	plant pathogen (wheat)	x	Ascomycota	Gp0002465
<i>Puccinia graminis</i>	plant pathogen; rust fungus (cereals)	x	Basidiomycota	Gp0002677
<i>Puccinia sorghi</i>	plant pathogen (maize); rust	x	Basidiomycota	Gp0118202
<i>Puccinia striiformis</i>	plant pathogen (wheat); rust fungus	x	Basidiomycota	Gp0039222
<i>Puccinia triticina</i>	plant pathogen (wheat, barley, rye); rust fungus	x	Basidiomycota	Gp0005826
<i>Pyrenophora seminiperda</i>	plant pathogen (necrotrophic; seeds of grasses/cereals)	x	Ascomycota	Gp0037221
<i>Pyrenophora teres</i>	plant pathogen (barley and some other crops)	x	Ascomycota	Gp0008318
<i>Pyrenophora tritici-repentis</i>	plant pathogen (cereals and grasses; necrotrophic)	x	Ascomycota	Gp0003140
<i>Ramularia collo-cygni</i>	plant pathogen (barley)	x	Ascomycota	Gs0120586
<i>Sarocladium oryzae</i>	plant pathogen (rice sheath rot)	x	Ascomycota	
<i>Sclerotinia borealis</i>	plant pathogen (cereals; sychrophilic)	x	Ascomycota	Gp0070994
<i>Setosphaeria turcica</i>	plant pathogen (maize)	x	Ascomycota	Gp0008856
<i>Sporisorium reilianum</i>	plant pathogen (maize); smut	x	Basidiomycota	Gp0038426
<i>Tilletia caries</i>	plant pathogen (bunt of wheat)	x	Basidiomycota	Gp0150383
<i>Tilletia controversa</i>	plant pathogen (dwarf bunt of wheat)	x	Basidiomycota	Gp0150384
<i>Tilletia horrida</i>	plant pathogen (rice); smut	x	Basidiomycota	Gp0118397
<i>Tilletia indica</i>	plant pathogen (Karnal bunt on wheat an triticale)	x	Basidiomycota	Gp0150415
<i>Ustilaginoidea virens</i>	plant pathogen (rice)	x	Ascomycota	Gp0115332
<i>Ustilago esculenta</i>	plant pathogen (wild rice); smut	x	Basidiomycota	Gp0109108
<i>Ustilago hordei</i>	plant pathogen (barley); smut	x	Basidiomycota	Gp0038438
<i>Ustilago maydis</i>	plant pathogen (maize and teosinte); smut	x	Basidiomycota	Gp0000206
<i>Villosiclava virens</i>	plant pathogen; (false smut of rice)	x	Ascomycota	Gp0094980
<i>Zymoseptoria passerinii</i>	plant pathogen (barley leaf blotch)	x	Ascomycota	Gp0010309
<i>Zymoseptoria tritici</i>	plant pathogen (wheat leaf blotch)	x	Ascomycota	Gp0010420
Fruit				
<i>Alternaria arborescens</i>	plant pathogen (tomato)		Ascomycota	Gp0038059
<i>Botryotinia fuckeliana</i>	plant pathogen (grapevines)		Ascomycota	Gp0002499
<i>Ceratocystis manginecans</i>	plant pathogen (mango)		Ascomycota	Gp0097242
<i>Cladosporium fulvum</i>	plant pathogen (leaf mold)		Ascomycota	
<i>Colletotrichum fioriniae</i>	plant pathogen (anthracnose in crops and wild plants)		Ascomycota	Gp0019317
<i>Dactylonectria macrodidyma</i>	plant pathogen (grapevine, avocado, and olive)		Ascomycota	Gp0117674
<i>Diplodia seriata</i>	plant pathogen (grapevine bot canker)		Ascomycota	Gp0117696
<i>Eremothecium cymbalariae</i>	plant pathogen (stigmatomycosis; fruit rot; crops)		Ascomycota	Gp0008918
<i>Erysiphe necator</i>	plant pathogen (powdery mildew of grape)		Ascomycota	Gp0117742
<i>Eutypa lata</i>	plant pathogen; grapevine dieback		Ascomycota	Gp0039198
<i>Geotrichum candidum</i>	plant pathogen (citrus)		Ascomycota	Gp0106203
<i>Guignardia citricarpa</i>	plant pathogen (citrus)		Ascomycota	Gp0041977
<i>Huntia omanensis</i>	plant pathogen (weak mango pathogen)		Ascomycota	Gp0121623
<i>Meira nashicola</i>	probable plant pathogen (pear)		Basidiomycota	Gp0144018
<i>Moniliophthora perniciosa</i>	plant pathogen (cacao)		Basidiomycota	Gp0002607
<i>Mycosphaerella eumusae</i>	plant pathogen (banana)		Ascomycota	Gp0143045
<i>Mycosphaerella fijiensis</i>	plant pathogen (leaf spot of banana)		Ascomycota	Gp0002650
<i>Neofusicoccum parvum</i>	plant pathogen (grapevines)		Ascomycota	Gp0039200
<i>Neonectria ditissima</i>	plant pathogen (apple canker)		Ascomycota	Gp0144542
<i>Passalora (Cladosporium) fulva</i>	plant pathogen (tomato)		Ascomycota	Gp0039398
<i>Peltaster fructicola</i>	plant pathogen (apples)		Ascomycota	Gp0143846
<i>Phaeoacremonium aleophilum</i>	plant pathogen (grapevine trunk disease)		Ascomycota	Gp0039199
<i>Phaeoconiella chlamydospora</i>	plant pathogen (grapevine trunk disease)		Ascomycota	Gp0118145
<i>Phyllosticta citriasiana</i>	plant pathogen (citrus tan spot)		Ascomycota	Gp0032376
<i>Phyllosticta citricarpa</i>	plant pathogen (citrus black spot)		Ascomycota	Gp0144687

Plenodomus tracheiphilus	plant pathogen (citrus)		Ascomycota	Gp0039845
Pseudocercospora musae	plant pathogen (banana)		Ascomycota	Gp0143044
Puccinia psidii	plant pathogen; rust fungus (guava)		Basidiomycota	Gp0144693
Pyrenochaeta lycopersici	plant pathogen (tomato)		Ascomycota	Gp0090025
Rosellinia necatrix	plant pathogen (fruits)		Ascomycota	Gp0146048
Stemphylium lycopersici	plant pathogen (fruits)		Ascomycota	Gp0118324
Taphrina deformans	plant pathogen (peach)		Ascomycota	Gp0038420
Taphrina flavorubra	plant pathogen (Prunus fruit)		Ascomycota	Gp0103452
Taphrina wiesneri	plant pathogen (cherry trees)		Ascomycota	Gp0103453
Thielaviopsis punctulata	plant pathogen (date palm)		Ascomycota	Gp0118396
Valsa mali	plant pathogen (apple & pear)		Ascomycota	Gp0118828
Venturia pyrina	plant pathogen (hemibiotrophic; pear)		Ascomycota	Gp0095335
Vegetables				
Alternaria brassicicola	plant pathogen (Brassica dark leaf spot)		Ascomycota	Gp0002466
Athelia rolfsii	plant pathogen (blight of vegetables)		Basidiomycota	Gp0106003
Ceratocystis fimbriata	plant pathogen (sweet potato)	x	Ascomycota	Gp0006908
Colletotrichum higginsianum	plant pathogen (anthracnose in Brassicaceae)		Ascomycota	Gp0008317
Fusarium sambucinum	plant pathogen (potato dry rot); mycotoxin-producing	x	Ascomycota	Gp0144734
Helminthosporium solani	plant pathogen (potato)	x	Ascomycota	Gp0047673
Leptosphaeria maculans	plant pathogen (Brassica crops)		Ascomycota	Gp0010336
Ophiognomonium clavignenti-juglans	plant pathogen (butternut)		Ascomycota	Gp0008964
Plectosphaerella cucumerina	plant pathogen (blight of cucurbits); nematophagous		Ascomycota	
Sclerotinia sclerotiorum	plant pathogen (broadest host range known)		Ascomycota	Gp0002703
Legumes				
Ascochyta rabiei	plant pathogen (blight on chickpea)		Ascomycota	Gp0150874
Colletotrichum incanum	plant pathogen (broad host range; including soybean)		Ascomycota	Gp0150230
Diaporthe aspalathi	plant pathogen (soybean stem canker)	x	Ascomycota	Gp0144055
Diaporthe longicolla	plant pathogen (soybean)	x	Ascomycota	Gp0038530
Eremothecium coryli	plant pathogen (soybean)	x	Ascomycota	Gp0097267
Erysiphe pisi	plant pathogen (powdery mildew of pea)		Ascomycota	Gp0008359
Fusarium virguliforme	plant pathogen (soybean)	x	Ascomycota	Gp0038801
Monilophthora roleri	plant pathogen (pod rot of cacao)		Basidiomycota	Gp0049167
Mycosphaerella arachidis (Cercospora)	plant pathogen (leaf spot on peanuts)		Ascomycota	Gp0150604
Puccinia arachidis	plant pathogen (peanut)		Basidiomycota	Gp0118201
Uromyces viciae-fabae	plant pathogen (beans); rust		Basidiomycota	Gp0117703
Multiple food crop types				
Alternaria alternata	plant pathogen (leaf spot)		Ascomycota	Gp0047507
Cercospora canescens	plant pathogen (leaf spot of various bean crops and tomato)		Ascomycota	Gp0037543
Colletotrichum gloeosporioides	plant pathogen (disease and anthracnose on a range of fruit and vegetables)		Ascomycota	Gp0038653
Colletotrichum orbiculare	plant pathogen (melons and cucumber)		Ascomycota	Gp0038654
Corynespora cassicola	plant pathogen (broad host range)	x	Ascomycota	Gp0086748
Fusarium oxysporum	plant pathogen (broad host range)		Ascomycota	Gp0037083
Macrophomina phaseolina	plant pathogen (broad host range)	x	Ascomycota	Gp0044758
Nectria haematococca	plant pathogen (broad host range)	x	Ascomycota	Gp0017718
Rhizoctonia solani	plant pathogen (broad host range)	x	Basidiomycota	Gp0041102
Verticillium alfalfae	plant pathogen (broad host range); wilt disease		Ascomycota	Gp0005850
Verticillium dahliae	plant pathogen (broad host range); wilt disease		Ascomycota	Gp0003474