

## SEQUENCE LISTING

<110> Omya Development AG  
 <120> NUCLEIC ACIDS AND METHODS FOR DETECTING TURFGRASS PATHOGENIC FUNGI  
 <130> BET 09P0535  
 <150> EP 08104225.1  
 2008-06-02  
 <150> US 61/059,862  
 2008-06-09  
 <160> 42  
 <170> PatentIn version 3.4  
 <210> 1  
 <211> 86  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> Fungal consensus sequence  
 <400> 1  
 catcgatgaa gaacgcwgc aahtgcgata mgtartgyga attgcagrat tcagtgartc 60  
 atcgaawytt tgaacgcaym ttgcrc 86  
 <210> 2  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> Degenerated PCR primer for fungal detection  
 <400> 2  
 gtgartcatc gaawytttga acgca 25  
 <210> 3  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> PCR primer for fungal detection  
 <400> 3  
 gtgaatcatc gaaactttga acgca 25  
 <210> 4  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 4  
gtgagtcatc gaaactttga acgca 25

<210> 5  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 5  
gtgaatcatc gaatctttga acgca 25

<210> 6  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 6  
gtgagtcatc gaatctttga acgca 25

<210> 7  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 7  
gtgaatcatc gaaattttga acgca 25

<210> 8  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 8  
gtgagtcatc gaaattttga acgca 25

<210> 9  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
 <223> PCR primer for fungal detection  
  
 <400> 9  
 gtgaatcatc gaatttttga acgca 25  
  
 <210> 10  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer for fungal detection  
  
 <400> 10  
 gtgagtcacg gaatttttga acgca 25  
  
 <210> 11  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer for fungal detection  
  
 <400> 11  
 gtgaatcatc gaaactttga acgca 25  
  
 <210> 12  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer for fungal detection  
  
 <400> 12  
 gtgagtcacg gaaactttga acgca 25  
  
 <210> 13  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer for fungal detection  
  
 <400> 13  
 gtgaatcatc gaacttttga acgca 25  
  
 <210> 14  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>

<223> PCR primer for fungal detection

<400> 14  
gtgagtcacgc gaatctttga acgca 25

<210> 15  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 15  
gtgaatcacgc gaaattttga acgca 25

<210> 16  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 16  
gtgagtcacgc gaaattttga acgca 25

<210> 17  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 17  
gtgaatcacgc gaattttttga acgca 25

<210> 18  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer for fungal detection

<400> 18  
gtgagtcacgc gaattttttga acgca 25

<210> 19  
<211> 589  
<212> DNA  
<213> Ascochyta phleina

<400> 19  
tccgtaggtg aacctgcgga aggatcatta cactcagtag ttactactg taaaggaggc 60

```

cgtcagtctg tatagcttca tcgctgacga gcagctggtc tcttttatcc acccttgtct 120
tttgcgtagc catgtttcct cggcaggctt gcctgccgac tggacaaatt tataaccttt 180
ttaattttca atcagcgtct gaaaaactta ataattacaa ctttcaacaa cggatctctt 240
ggttctggca tcgatgaaga acgcagcgaa atgcgataag tagtgtgaat tgcagaattc 300
agtgaatcat cgaatctttg aacgcacatt gcgccccctg gtattccatg gggcatgcct 360
gttcgagcgt catttgtacc ctcaagcttt gcttgggtgtt ggggtgtttgt cctctccctg 420
gtgtttggac tcgccttaaa acaattggca gccagtgttt tggatttgaa gcgcagcaca 480
agtcgcgatt ctaacctagt aacacttgcg tccacaagcc ttttttcaact tttgacctcg 540
gatcaggtag ggatacccg c tgaacttaag catatcaata agcggagga 589

```

```

<210> 20
<211> 584
<212> DNA
<213> Curvularia affinis

```

```

<400> 20
tccgtaggtg aacctgcgga gggatcatta cacaataaac atatgaaggc tgcaccgcca 60
gttggcggca aggctggagt attttattac ccttgtcttt tgcgcacttg ttgtttcctg 120
ggcgggttcg cccgccacca ggaccacatg ataaaccttt tttatgcagt tgcaatcage 180
gtcagtacaa caaatgtaaa tcatttataa ctttcaacaa cggatctctt ggttctggca 240
tcgatgaaga acgcagcgaa atgcgatacg tagtgtgaat tgcagaattc agtgaatcat 300
cgaatctttg aacgcacatt gcgccccctg gtattccaaa gggcatgcct gttcgagcgt 360
catttgtacc ctcaagcttt gcttgggtgtt gggcgttttg tctttggttg ccaaagactc 420
gccttaaaac gattggcagc cggcctactg gtttcgcagc gcagcacatt tttgcgcttg 480
caatcagcaa aagaggacgg cactccatca agactcttta tcaacttttga cctcggatca 540
ggtagggata cccgctgaac ttaagcatat caataagcgg agga 584

```

```

<210> 21
<211> 587
<212> DNA
<213> Glomerella graminicola

```

```

<400> 21
tccgtaggtg aacctgcgga gggatcatta ctgagttacc gctctataac cctttgtgaa 60
catacctaac cgttgcttcg gcgggttagg gggccccctc tccggggggac gccctcccgg 120
ccgggccccca ctgcggggct cggcgccccg cgaggataa ccaaactctg atttaacgac 180
gtctcttctg agtggcacia gcaaataatt aaaactttta acaacggatc tcttggttct 240

```

ggcatcgatg aagaacgcag cgaaatgcga taagtaatgt gaattgcaga attcagtgaa 300  
 tcatcgaatc tttgaacgca cattgcgccc gccagcattc tggcgggcat gcctgttcga 360  
 gcgtcatttc aaccctcaag ctccgcttgg tgttggggcc ctacggcgta cgtcgtaggc 420  
 ccttaaaggt agtggcgga cctcccgag cctcctttgc gtagtaacta acgtctcgca 480  
 tcgggatccg gagggactct tgccgtaaaa cccccaactt tttaactggg tgacctcgga 540  
 tcaggtagga ataccgctg aacttaagca tatcaataag cggagga 587

<210> 22  
 <211> 710  
 <212> DNA  
 <213> Thanatephorus cucumeris

<400> 22  
 tccgtaggtg aacctgcgga aggatcatta ttgaatttta ttaatgagga gttgagttgt 60  
 tgctggcctt ttctacctta atttggcagg agggggcatg tgcacacctt ctcttttatac 120  
 catcacaccc cctgtgcact tgtgagacag caatagttgg tggatttaat tccatccatt 180  
 tgctgtctac ttaatttaca cacactctac ttaattttaa ctgaatgtaa ttgatgtaac 240  
 gcatctaata ctaagtttca acaacggatc tcttggtctc cgcacgatg aagaacgcag 300  
 cgaaatgcga taagtaatgt gaattgcaga attcagtgaa tcatcgaatc tttgaacgca 360  
 ccttgcgctc cttggtattc cttggagcat gcctgtttga gtatcatgaa atcttcaaag 420  
 taaacctttt gttaattcaa ttggtctttt ttactttggg tttggaggat cttattgcag 480  
 cttcacacct gtcctctttt gtgcattagc tggatctcag tgttatgctt gggtccactc 540  
 ggctgataa gttatctatc gctgaggaca cccgtaaaaa aggtggccaa ggtaaagtga 600  
 gatgaaccgc ttctaatagt ccattgactt ggacaatatt ctattttatg atctgatctc 660  
 aatcaggta ggactaccgc ctgaacttaa gcatatcaat aagcggagga 710

<210> 23  
 <211> 914  
 <212> DNA  
 <213> Pythium ultimum

<400> 23  
 tccgtaggtg aacctgcgga aggatcatta ccacacttta aaaaactgtc cacgtgaact 60  
 gtaagcaagt ctagcgctgt gactgagctg gtgttttcat ttttggacac tggaacggga 120  
 gtcagcagga cgaaggttgg tctgttgtaa tgcaagttat gatggactag ctgatgaact 180  
 tttgttttta aacccttacc taaatactga ttatactgt ggggacgaaa gtccttgctt 240  
 ttactagata acaactttca gcagtggatg tctaggctcg cacatcgatg aagaacgctg 300  
 cgaactgcga tacgtaatgc gaattgcaga attcagtgag tcatcgaaat tttgaacgca 360

tattgcactt tcgggttatg cctggaagta tgtctgtatc agtgtccgta aatcaaactt	420
gcctttcttt ttccgtgtag tcagggatgg aatgtgcaga tgtgaagtgt ctcgcatggg	480
tgcgttcggt ttttcgatcg agaactctgtc gagtcctttt aaatggacac ggtcttttct	540
atggtttcta tgaagtgtaa tggttggaag gcagtgattt tcggattgct ggcggctttt	600
ggcgacttcg gtatgaacgt atggagacta gctcaattcg tggatatgta ggcttcggct	660
cgacaatgtt gcgtaattgt gtgtggtctt tgtttgtgcc ttgaggtgta ctagagggtg	720
tcggtttgaa ccgtaagtga ttgttttagta gagcattttc acgatgtatg gagacgctgc	780
atttagttgc gtagagagat tgatttgga aattttgtat cattgtcaat tgcaagattg	840
tgtatgggat ctcaattgga cctgggatca gacaagacta cccgctgaac ttaagcatat	900
caataagcgg agga	914

<210> 24  
 <211> 558  
 <212> DNA  
 <213> *Gaeumannomyces graminis*

<400> 24	
tccgtaggtg aacctgcgga gggatcatta cagagttgaa aaactccaac ccctgtgaac	60
atacctttac tgttgcttcg gcggacgatg gcccccccg ggggcgggac gccgcggag	120
gttacaaacc ctgaatttta gtgtatctct gagtataaaa ccaaataatt aaaactttca	180
acaacggatc tcttggttct ggcatcgatg aagaacgcag cgaaatgcga taagtaatgt	240
gaattgcaga attcagtga tcatcgaatc tttgaacgca cattgcgcc gccggtattc	300
cggcgggcat gcctgtccga gcgtcatttc accactcaag cccagcttgg tggtggggca	360
cccggccgcc cggcggtcgg gggccccaag aacatcggcg gtctcgccag gaccctgaac	420
gcagtaactc gcggtaaaac gcgcttcgtt cggaggcttc cgggcgggct ccagccgcta	480
aacccctaa acttcttagg ttgacctcgg atcaggtagg aatacccgct gaacttaagc	540
atatcaataa gcggagga	558

<210> 25  
 <211> 672  
 <212> DNA  
 <213> *Marasmius oreades*

<400> 25	
tccgtaggtg aacctgcgga aggatcatta ttgaaacatt gttaaaggaag gttgagctgg	60
ctcttcacgg gcatgtgctc gcctttcttt caatcttcat ccacctgtgc actttttgta	120
gggagctttg agaatgggac ctctcgcggg gttcctagta ttgggctctc tatgtcttca	180

cacactcttg aatgtatgtc gttgaatgtc ttttacaggg acttaattga ccctttaaaa 240  
 actatacaac tttcagcaac ggatctcttg gctctcgcat cgatgaagaa cgcagcgaaa 300  
 tgcgataagt aatgtgaatt gcagaattca gtgaatcatc gaatctttga acgcaccttg 360  
 cgcctcttgg tattccgaga ggcatgcctg tttgagtgtc attaaattct caacttcaaa 420  
 agcttttggt tttgaagctt ggatgtggag gctttgctgg ctcttctaga gtcggctcct 480  
 ctgaaatgca ttagtggaag ctgtttgcaa tccgcattgg tgtgataatt atctacgctt 540  
 gtgtgtggct gcagctcttt acgagtttag tatccgcttc aaaccgtcct aagttactgg 600  
 acaacttgaa ctttttgacc tcaaatacagg taggactacc cgctgaactt aagcatatca 660  
 ataagcggag ga 672

<210> 26  
 <211> 716  
 <212> DNA  
 <213> *Corticium fuciforme*

<400> 26  
 tccgtaggtg aacctgcgga aggatcatta acgagtttta aaagagttgt agctggccct 60  
 ctgggggatg tgcacgctct actcatccac atacacctgt gcacatagat agtctttttt 120  
 ttgagaaggg ggagaaaaag tagccctttg ggtgaaaagt ttccccctc ttcagaaagc 180  
 tattcttttt atacacatac acttttagtta agaatgtata tattgctata aaacgcatta 240  
 aatataactt tcaacaacgg atctcttggc tctcgcatcg atgaagaacg cagcgaaatg 300  
 cgataagtaa tgtgaattgc agaattcagt gaatcatcga atctttgaac gcaccttgcg 360  
 ctcttggta ttccgaggag catgcctgtt tgagtgtcat gaatatctca actctcaaag 420  
 ttctgtaatg gatcattgag agcttggact ttggaggctt gctggtcata atgtatcagc 480  
 tcctcttaaa tgaattagct ctggattacg atgtagttta tctacggtgt gatacatgtc 540  
 tacgctatta gataactacg aacgttaciaa ttctccatt tctgggggtt gcgtgactag 600  
 taaatacaaa gcttctaatt gtctttcggg acaaaacctg atttcattat cttgacatct 660  
 gacctcaaat caggtaggac taccgctga acttaagcat atcaataagc ggagga 716

<210> 27  
 <211> 892  
 <212> DNA  
 <213> *Phytophthora nicotianae*

<400> 27  
 tccgtaggtg aacctgcgga aggatcatta ccacacctaa aaaactttcc acgtgaaccg 60  
 tttcaacca atagttgggg gtcttatttg gcggcggctg ctggcttaat tgttggcggc 120  
 tgctgctgag tgagccctat caaaaaaag gcgaacgttt gggcttcggc ctgatttagt 180



```

agtctttttt tcttttaaac ccattcctta atactgaata tactgtgggg acgaaagtct 240
ctgcttttaa ctagatagca actttcagca gtggatgtct aggctcgac atcgatgaag 300
aacgctgcga actgcgatac gtaatgcgaa ttgcaggatt cagtgagtca tcgaaatfff 360
gaacgcata tgcacttccg ggtagtcct ggaagtatgc ctgtatcagt gtccgtacat 420
taaacttgac tttcttcctt ccgtgtagtc ggtggaggag atgtcagatg tgaagtgtct 480
tgcgattggg ctccgaccg gctgcgagtc cttttaaatg tactaaactg aacttctctt 540
tgctcgaaaa gtgggtggcg tgctggttgt gaaggctgct attgtggcaa attggcgact 600
ggtttgtctg ctgcggcggt aatgggagag tgttcgattc gtggtatggg tggcttcggc 660
tgaacaatgc acttattgga cgtttttctt gctgtggcgt gatggactgg tgaaccatag 720
ctcgggtggc tggcttttga attggctttg ctgttgcgaa gtagggtggc agcttcgggt 780
gtcgagggtc gatccatttg ggaacttaat gtgtacttcg gtatgcatct caattggacc 840
tgatatcagg caagattacc cgctgaactt aagcatatca ataagcggag ga 892

```

```

<210> 28
<211> 545
<212> DNA
<213> Fusarium culmorum

```

```

<400> 28
tccgtaggtg aacctgcgga gggatcatta ccgagtttac aactcccaaa cccctgtgaa 60
cataccttat gttgcctcgg cggatcagcc cgcgccccgt aaaaagggac ggcccgcgcg 120
aggaacccta aactctgttt ttagtggaac ttctgagtat aaaaaacaaa taaatcaaaa 180
ctccaacaa cgatctctt ggttctggca tcgatgaaga acgcagcaaa atgcgataag 240
taatgtgaat tgcagaattc agtgaatcat cgaatctttg aacgcacatt gcgcccgcga 300
gtattctggc gggcatgcct gttcagagcg catttcaacc ctcaagccca gcttgggtgt 360
gggagctgca gtctgtctgc actcccaaaa tacattggcg gtcacgtcga gcttccatag 420
cgtagtaatt tacatatcgt tactggtaat cgtcgcggcc acgccgttaa accccaactt 480
ctgaatgttg acctcggatc aggtaggaat acccgctgaa ctttaagcata tcaataagcg 540
gagga 545

```

```

<210> 29
<211> 586
<212> DNA
<213> Bipolaris sorokiniana

```

```

<400> 29
tccgtaggtg aacctgcgga gggatcatta cacaacaaaa tatgaaggcc tggcttcgcg 60

```

```

gccggctgaa atatTTTTTT caccatgtc ttttgcgcac ttgttgtttc ctgggcggtg 120
tcgcccgcga ccaggaccaa accataaacc ttttttttat gcagttgcaa tcagcgtcag 180
taaaaacaat gtaattatta caactttcaa caacggatct cttggtcctg gcatcgatga 240
agaacgcagc gaaatgcat acgtagtgtg aattgcagaa ttcagtgaat catcgaatct 300
ttgaacgcac attgcgcctt ttggtattcc aaagggcatg cctgttcgag cgtcatttgt 360
accttcaagc tttgcttggt gttgggcgtt ttttgtctcc ctctttctgg gagactcgcc 420
ttaaAACgat tggcagccgg cctactggtt tcggagcgca gcacatattt tgcgctttgt 480
atcaggagaa aaggacggta atccatcaag actctacatt tttaaactttt gacctcgga 540
caggtaggga taccgctga acttaagcat atcaataagc ggagga 586

```

```

<210> 30
<211> 556
<212> DNA
<213> Microdochium nivale

```

```

<400> 30
tccgtaggtg aacctgcgga gggatcatta ctgagttttt aactctccaa accatgtgaa 60
cttaccactg ttgcctcggg ggatgggtgt gtctctcggg acggtgccac cgccgggtgga 120
ctacctaaac tctgttaatt tttgtcaatc tgaatcaaac taagaaataa gttaaaactt 180
tcaacaacgg atctcttggt tctggcatcg atgaagaacg cagcgaaatg cgataagtaa 240
tgtgaattgc agaattcagt gaatcatcga atctttgaac gcacattgag cccattagta 300
ttctagtggg catgcctgtt cgagcgtcat ttcaaccctt aagcctagct tagtggtggg 360
agactgccta atacgcagct cctcaaaacc agtggcgagag tcggttcgtg ctctgagcgt 420
agtaattttt tatctcgctt ctgcaagccg gactggcaac agccataaac cgcacccttc 480
gggggcactt tttaatggtt gacctcgga caggtaggaa taccgctga acttaagcat 540
atcaataagc ggagga 556

```

```

<210> 31
<211> 684
<212> DNA
<213> Rhizoctonia cerealis

```

```

<400> 31
tccgtaggtg aacctgcgga aggatcatta gtgaatgaat gtagagtcgg ttgtagctgg 60
gtcttttaat cgaggccatg tgcacgcctt ctctttcatc cacacacacc tgtgcacctg 120
tttagacggg cgaaggaaaa agtctttctc gcgagagaga ggctggctcc ttttccgtcc 180
aatacataaa atcttatata tttaatcaga atgtaatcga tgtaaacgca tctataaaact 240
aagtttcaac aacggatctc ttggctctcg catcgatgaa gaacgcagcg aaatgcgata 300

```

agtaatgtga attgcagaat tcagtgaatc atcgaatctt tgaacgcacc ttgcgctcct 360  
 tggatttcct cggagcacgc ctgtttgagt atcatgaaat tctcaaagca agtcttttgt 420  
 taattcaact ggcttttgtt ttggatttgg aggttttgca gattcacgtc tgctcctctt 480  
 aaatgcatta gctggatctc tataaaaccg gttccactcg gcgtgataag tatcactcgc 540  
 tgaggacact cttgaaaaag ggtggccgga ttcattgatg aaccgcttct aacggctctat 600  
 tagattagac aaacacactt tatgatctga tctcaaatca ggtgggacta cccgctgaac 660  
 ttaagcatat caataagcgg agga 684

<210> 32  
 <211> 872  
 <212> DNA  
 <213> *Pythium graminicola*

<400> 32  
 tccgtaggtg aacctgcgga aggatcatta ccacaccaa aaactttcca cgtgaaccgt 60  
 tataattatg ttctgtgctt tccttcggga aggctgaacg aaggttgatc gtatgtatta 120  
 atttatgtgt ggtcttccga tgtcttttaa acccattact taatactgat ctatactccg 180  
 agaacgaaag tttttggttt taatccataa caactttcag cagtggatgt ctaggctcgc 240  
 acatcgatga agaacgctgc gaactgcgat acgtaatgcg aattgcagaa ttcagtgagt 300  
 catcgaaatt ttgaacgcac attgcacttt cgggatattc ctggaagtat gcttgtatca 360  
 gtgtccgtac atcaaacttg cctttctttt tttgtgtagt caaggagaga aatggccgat 420  
 tgtgaggtgt ctcgttgact cccttttcgg aggagaagac gcgagtcctt ttaaattgtac 480  
 gttcgtcttt tcttgtgtct gaggtgaagt gtgactttcg aacgcattga tctgtttgga 540  
 tcgttttgcg cgagtgggcg acttcggtta ggacgttaaa ggaagcaacc attattggcg 600  
 gtatgttaga cttcgggtccg actttgcagc tgagagtgtg tagttttctg ttctttcctt 660  
 gaggtgtacc tgtttgtgtg aggcaatggt ctgagcaaat ggttattgtg tagtagaatt 720  
 ttgctgctct tggacgccct attcgtaggg taaagtagac aacaccattt tgggactagt 780  
 ctatgtatta atttatgtgg gcgatttttc aatttggacc tgatatcaag taagactacc 840  
 cgctgaactt aagcatatca ataagcggag ga 872

<210> 33  
 <211> 627  
 <212> DNA  
 <213> *Rhynchosporium secalis*

<400> 33  
 tccgtaggtg aacctgcgga aggatcatta atagagcaaa gaacagtcag cgccctagga 60

```

gaaatccccg gggctaccct acttcggtgg ggttttagaga cgtcaggccg ctccaagaag 120
cctgggttcag acctccaccc ttgaataaac tacctttggt gctttggcag gccgcccagc 180
gccagcggct tcggctgctg agtgcctgcc agaggaccac aactcttggt tttagtgatg 240
tctgagtact atataatagt taaaactttc aacaacggat ctcttggttc tggcatcgat 300
gaagaacgca gcgaaatgcg ataagtaatg tgaattgcag aattcagtga atcatcgaat 360
ctttgaacgc acattgcgcc ctctggtatt ccggggggca tgccgtgttc agcgtcatta 420
taaccactca agctctcgct tggatttggg gttcgcgtcc tcgcggcccc taaaatcagt 480
ggcgggtgct gtccggtcta cgcgtagtaa tactcctcgc gattgagtcc ggctgggtcta 540
cttgccaata acccccaaat ttttacaggt tgacctcgga tcaggtaggg ataccgctg 600
aacttaagca tatcaataag cggagga 627

```

```

<210> 34
<211> 586
<212> DNA
<213> Sclerotinia homoeocarpa

```

```

<400> 34
tccgtaggtg aacctgcgga aggatcatta ccgagttcac gccctcacgg gtagacctcc 60
aacccttggt tatctctacc atgttgcttt ggcaggctgc tcgacccttc cggggacagc 120
ctcagcgcgc tccggggccg gagagtcgcc tgccggagga aaatcacaaac tctgaattgt 180
cagtgtcgtc tgagtgacta tctaatagtt aaaactttca acaacggatc tcttggttct 240
ggcatcgatg aagaacgcag cgaaatgcga taagtaatgt gaattgcaga attcagtga 300
tcatcgaatc tttgaacgca cattgcgcc cttggtattc cggggggcat gcctgttcga 360
gcgtcatttc aacctcaag ctctctgctt ggtattgggc ctccgccggt cacacggcgg 420
gccttaaagt cagtggcggc gccgctgggt cctgaacgta gtaacacata cctctcgtt 480
caggggtccc gcgcgtccc gccgtaaaac cccctcatt ttctctgggt gacctcgat 540
caggtaggga taccgctga acttaagcat atcaataagc ggagga 586

```

```

<210> 35
<211> 825
<212> DNA
<213> Typhula incarnate

```

```

<400> 35
tccgtaggtg aacctgcgga aggatcatta tcgaatttaa ggctttgggt gagctggcgc 60
ttcgggtgcat gtgcttgctt tgtgctgtcc attcttcaac acctgtgcac actttgtagt 120
tgactctttt gtttatctgt tcatctctct cttgactccg gtctctgtga aggggtgcgt 180
ggcttttcga aagcaaggct ctctatgtta ttattatata ccctttacaa aaaacaagtc 240

```

catagaacgt ccaatgtagg cgcagcgtaa aacactgttt gctgaaatta taaaacttat	300
acaactttta acaacggatc tcttggtctc cgcacgatg aagaacgcag cgaaatgcga	360
taagtaatgt gaattgcaga attcagtga tcatcgaatc tttgaacgca ccttgcgctc	420
cctggtattc cggggagcat gcctgtttga gtgtcattaa attctcaacc aactatggt	480
tttattaacg tagttcttgt ggcttgatc ttggagtttg tgccggtaaa cctttagtta	540
ggttggtggc tcctctttaa atgcattagc tggaacctct ttgtggtgcc agactatggt	600
gtgataatta tctacgctgt ggtttggtgc gctgcgaatt taactatggg gttctgcttc	660
taatcgcccc tttcaaagga cagtatagag tgtggtgggg tgggggttgc tttcaagggg	720
ttcgctctt gtgttacaat cttgcccttt acctcttaac tgacattttg acctcaaac	780
aggtaggact acccgctgaa ctttaagcata tcaataagcg gagga	825

<210> 36  
 <211> 780  
 <212> DNA  
 <213> *Ustilago striiformis*

<400> 36	
tccgtaggtg aacctgcgga tggatcattt cgatgaaaac ctttttttct tgaggtgtgg	60
ctcgcacctg tctaactaaa cttgagctac cttttttcaa cacggttgca tcggttgccc	120
tgtcaaacag tgcggcgccg tgaattttca cgtctgcttt ggctgggcga cggaccgaca	180
cttaatcaac acttttgata atctaggatt tgaatgataa aagttcattt ttacaatgaa	240
atcgactggg aatgcggtcg tctaattttt aaaaacaact tttggcaacg gatctcttgg	300
ttctcccatc gatgaagaac gcagcgaatt gcgataagta atgtgaattg cagaagtga	360
tcatcgaatc tttgaacgca ccttgcgctc ccggcagatc taatctgggg agcatgcctg	420
tttgagggcc gcgaattggt tcgaacgaca actttttctc tctttttttt gaagagttgg	480
cggatcggtg ttgagggttt tgccattcac cgtggctccc tcgaaatgca ttagcgcac	540
catttgatag gcaagacgga cgaaagctcg attttcgctc tctcttccct gccgggttcc	600
gataatatca ggacttcgga gaggttgaga tgggtaagag ctggacgcaa cggcttgctg	660
tttgaggtgc ttctgaaacc cgcccatatc gagctttgcc tcggaaggga ctttaataat	720
tcatcggcct cagattggta ggactaccgc ctgaacttaa gcatatcaat aagcggagga	780

<210> 37  
 <211> 540  
 <212> DNA  
 <213> *Septoria macropoda*

<400> 37

```

tccgtaggtg aacctgcgga gggatcatta ccgagtgggg gcctccgggt ccgatctcca      60
accctttgtg aacacatccc gttgcttcgg gggcgcccgg gccggggcgcc cccggaggac      120
catccaacac tgcattctttg cgtcggagtt tacgagtaaa tcgaaacaaa actttcaaca      180
acggatctct tggttctggc atcgatgaag aacgcagcga aatgcgataa gtaatgtgaa      240
ttgcagaatt cagtgaatca tcgaatcttt gaacgcacat tgcgccccct ggtattccgg      300
ggggcatgcc cgttcgagcg tcattacacc actccagcct cgctgggtat tgggcgtccg      360
cgggggagca atcccccgcg cgcctcaaag tctccggctg agcgggtccg tctcccagcg      420
ttgtggcatc acgtctcgcc gcggagtctc gggccctcac ggccgttaaa tcacacctca      480
ggttgacctc ggatcgggta gggatacccg ctgaacttaa gcataatcaat aagcggagga      540

```

```

<210> 38
<211> 25
<212> DNA
<213> Artificial sequence

```

```

<220>
<223> Degenerated PCR primer for fungal detection

```

```

<400> 38
tgcggtcaaa rwttcgatga ytcac      25

```

```

<210> 39
<211> 19
<212> DNA
<213> Artificial sequence

```

```

<220>
<223> ITS1-F primer

```

```

<400> 39
tccgtaggtg aacctgcgg      19

```

```

<210> 40
<211> 20
<212> DNA
<213> Artificial sequence

```

```

<220>
<223> ITS4 primer

```

```

<400> 40
tcctccgctt attgatatgc      20

```

```

<210> 41
<211> 22
<212> DNA
<213> Artificial sequence

```

```

<220>

```

<223> ITS5 primer

<400> 41

ggaagtaaaa gtcgtaacaa gg

22

<210> 42

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> SR6R primer

<400> 42

aagwaaaagt cgtaacaagg

20