# Common Contact Fungicides for Turf

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SOME TRADE NAMES</th>
<th>CHEMICAL FAMILY / MOA</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorothalonil</td>
<td>Daconil, Manicure, Thalonil</td>
<td>Benzonitrile</td>
<td>Little if any resistance to chlorothalonil has been reported in fungi. Use on home lawns restricted.</td>
</tr>
<tr>
<td>Mancozeb</td>
<td>Fore, Mancozeb, Dithane</td>
<td>Dithiocarbamate</td>
<td>Broad spectrum of control</td>
</tr>
<tr>
<td>Iprodione</td>
<td>Chipco 26019, Chipco 26GT, Proturf Fungicide X</td>
<td>Dicarboximide</td>
<td>Local penetrant. Broad spectrum of control</td>
</tr>
<tr>
<td>Vinclozolin</td>
<td>Vorlan, Touche, Curalan</td>
<td>Diacarboximide</td>
<td>See iprodione. Some vinclozolin and iprodione products are no longer labeled for use on residential turfgrass.</td>
</tr>
<tr>
<td>PCNB</td>
<td>PCNB, Terraclor, Defend, Scotts FFII</td>
<td>Aromatic Hydrocarbon</td>
<td>May be locally systemic.</td>
</tr>
<tr>
<td>Trifloxystrobin</td>
<td>Compass</td>
<td>Strobilurin</td>
<td>Local penetrant</td>
</tr>
<tr>
<td>Fludioxonil</td>
<td>Medallion</td>
<td>Phenylpyrrole</td>
<td>Single-site mode of action; resistance may occur.</td>
</tr>
<tr>
<td>Polyoxin-D</td>
<td>Endorse, Affirm</td>
<td>Antibiotic</td>
<td>Inhibits chitin formation in fungi.</td>
</tr>
</tbody>
</table>
# Common Systemic Fungicides for Turf

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SOME TRADE NAMES</th>
<th>CHEMICAL FAMILY / MOA</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benomyl</td>
<td>Benomyl, Tersan</td>
<td>Benzimidazole</td>
<td>Broad spectrum of control. Upwardly systemic. Resistance reported</td>
</tr>
<tr>
<td>Thiophanate-methyl</td>
<td>Cleary’s 3336, Cavalier, Fungo, Proturf Systemic Fungicide</td>
<td>Benzimidazole</td>
<td>See Benomyl. Some resistance reported</td>
</tr>
<tr>
<td>Fenarimol</td>
<td>Rubigan</td>
<td>Sterol inhibitor (DMI)</td>
<td>Broad spectrum, upwardly systemic. All DMIs are much better in preventative than curative applications. Some resistance reported. Can injure turfgrass – especially cool season turf - if applied in hot weather.</td>
</tr>
<tr>
<td>Propiconazole</td>
<td>Banner, Banner MAXX</td>
<td>Sterol inhibitor (DMI)</td>
<td>See above</td>
</tr>
<tr>
<td>Triadimefon</td>
<td>Bayleton, Bayer Advanced Lawn Fungus Control</td>
<td>Sterol inhibitor (DMI)</td>
<td>See above</td>
</tr>
<tr>
<td>Myclobutanil</td>
<td>Eagle, Golden Eagle, Spectracide Immunox</td>
<td>Sterol inhibitor (DMI)</td>
<td>See above</td>
</tr>
<tr>
<td>Triticonazole</td>
<td>Trinity, Triton FLO</td>
<td>Sterol inhibitor (DMI)</td>
<td>See above; be careful on bermudagrass putting greens</td>
</tr>
<tr>
<td>Metconazole</td>
<td>Tourney</td>
<td>Sterol inhibitor (DMI)</td>
<td>See above. Not labeled for use on bermudagrass.</td>
</tr>
<tr>
<td>Azoxystrobin</td>
<td>Heritage, Maxide Disease Killer</td>
<td>Strobilurin</td>
<td>Upwardly systemic. Broad spectrum, including activity against <em>Pythium</em>.</td>
</tr>
<tr>
<td>COMMON NAME</td>
<td>SOME TRADE NAMES</td>
<td>CHEMICAL FAMILY / MOA</td>
<td>COMMENTS</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------</td>
<td>-----------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Pyraclostrobin</td>
<td>Insignia</td>
<td>Strobilurin</td>
<td>Similar to Heritage, but better activity against dollar spot.</td>
</tr>
<tr>
<td>Flutolanil</td>
<td>ProStar</td>
<td>Benzanilide</td>
<td>Upwardly systemic. Has some activity against fairy ring fungi. Not active against dollar spot</td>
</tr>
<tr>
<td>Boscalid</td>
<td>Emerald</td>
<td>Anilide</td>
<td>Dollar spot and bentgrass dead spot on golf courses only</td>
</tr>
</tbody>
</table>

**Fungicides Sold as Pre-Mixed Products**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>INGREDIENTS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junction</td>
<td>Mancozeb + copper hydroxide</td>
<td>For algae and moss control</td>
</tr>
<tr>
<td>Lesco Twosome</td>
<td>Fenarimol + iprodione</td>
<td>Combines contact + systemic</td>
</tr>
<tr>
<td>26/36 Proturf Fluid Fungicide</td>
<td>Iprodione + thiphionate-methyl</td>
<td></td>
</tr>
<tr>
<td>Proturf Fluid Fungicide II</td>
<td>Metalaxyl + triademifon</td>
<td></td>
</tr>
<tr>
<td>MANhandle</td>
<td>Myclobutanil + mancozeb</td>
<td></td>
</tr>
<tr>
<td>Proturf Fungicide IX</td>
<td>Thiophanate-methyl + chloroneb</td>
<td></td>
</tr>
<tr>
<td>ConSyst, Spectro, Broadcide</td>
<td>Thiophanate-methyl + chlorothalonil</td>
<td></td>
</tr>
<tr>
<td>Systar</td>
<td>Thiophanate-methyl + flutolanil</td>
<td></td>
</tr>
<tr>
<td>PRODUCT</td>
<td>INGREDIENTS</td>
<td>COMMENTS</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Duosan</td>
<td>Thiophanate-methyl + mancozeb</td>
<td></td>
</tr>
<tr>
<td>Bromosan</td>
<td>Thiophanate-methyl + thiram</td>
<td></td>
</tr>
<tr>
<td>Proturf Fluid Fungicide</td>
<td>Triademifon + thiram</td>
<td></td>
</tr>
<tr>
<td>Prostar Plus</td>
<td>Triademifon + flutolanil</td>
<td></td>
</tr>
<tr>
<td>Armada, Tartan</td>
<td>Triademifon + trifloxystrobin</td>
<td></td>
</tr>
<tr>
<td>Headway</td>
<td>Azoxystrobin + propiconazole</td>
<td></td>
</tr>
<tr>
<td>Honor</td>
<td>Pyraclostrobin + boscalid</td>
<td></td>
</tr>
<tr>
<td>Renown</td>
<td>Azoxystrobin + chlorothalonil</td>
<td></td>
</tr>
<tr>
<td>Concert</td>
<td>Propiconazole + chlorothalonil</td>
<td></td>
</tr>
<tr>
<td>Reserve</td>
<td>Triticonazole + chlorothalonil</td>
<td></td>
</tr>
<tr>
<td>Instrata</td>
<td>Propiconazole + Chlorothalonil + Fludioxonil</td>
<td>Good for snow mold</td>
</tr>
<tr>
<td>Interface</td>
<td>Iprodione + Triflozystrobin</td>
<td></td>
</tr>
</tbody>
</table>
## Pythium Fungicides for Turf

(In various chemical families)

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SOME TRADE NAMES</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Chloroneb</td>
<td>Teremec SP, Proturf Fungicide II</td>
<td>Contact fungicide; not systemic</td>
</tr>
<tr>
<td>Ethazol</td>
<td>Koban, Terrazol</td>
<td>Contact fungicide; not systemic.</td>
</tr>
<tr>
<td>Metalaxyl</td>
<td>Subdue 2E, 2X</td>
<td>Upwardly systemic. Some resistance reported.</td>
</tr>
<tr>
<td>Mefanoxam</td>
<td>Subdue MAXX</td>
<td>Upwardly systemic. Some resistance reported.</td>
</tr>
<tr>
<td>Propamocarb</td>
<td>Banol</td>
<td>Upwardly systemic.</td>
</tr>
<tr>
<td>Azoxystrobin</td>
<td>Heritage</td>
<td>Upwardly systemic.</td>
</tr>
<tr>
<td>Fosetyl-Aluminium</td>
<td>Prodigy, Aliette Signature, Sigature, Signature,</td>
<td>Upwardly AND downwardly systemic. Reports of activity against fungi other than Pythium.</td>
</tr>
<tr>
<td>Phosphites</td>
<td>Alude, Magellan, Vital</td>
<td>Upwardly AND downwardly systemic. Reports of activity against fungi other than Pythium.</td>
</tr>
</tbody>
</table>
**FUNGICIDE USE ON TURFGRASSES**

**CONTACT OR PROTECTANT FUNGICIDES**

- Little or no systemic movement in the plant
- Even coverage and rainfastness crucial for good disease control
- Foliar diseases

**SYSTEMIC FUNGICIDES**

- Taken up by turf and translocated upward throughout plants
- Fosetyl-Al and phosphite fungicides have true systemic activity, moving both up and down

Foliar and root diseases