

## INDEX

adjuvants, 131, 132  
air movement, 1, 111, 112, 193  
algae, 112, 135, 136, 182  
annual bluegrass, 19, 20, 25, 79, 88, 93, 170, 174, 181, 182, 211, 232  
anthracnose, 93, 191  
Aphodius, 45, 46, 51, 187, 188  
artificial turf, 228, 229  
Ataenius, 45, 46, 51, 52, 187, 188  
athletic fields, 7, 8, 10, 28, 34, 36, 69, 213, 215, 216, 218-220, 223-227  
ball roll, 17, 18, 120, 138, 170, 171  
bentgrass, 11, 12, 14-18, 20, 37, 38, 69, 70, 73, 76, 77, 79, 94, 98, 111, 112, 137-145, 170, 171, 173-175, 178, 179, 185, 189, 190, 193, 201, 205-207, 209, 211, 225, 226, 228, 232  
best management practices, 116, 117, 160-162  
biological control, 45, 65, 66  
black layer, 181, 182, 185  
brown patch, 17, 22, 94, 95, 111, 112, 130, 175, 182, 191, 205-207  
compaction, 35, 69, 70, 119, 125, 181, 183, 184, 213, 220, 223, 224, 226, 227  
compost, 1, 2, 73, 74  
crabgrass, 37-40, 125, 148, 153, 156, 182, 220  
creeping bentgrass, 11, 12, 14-18, 20, 37, 69, 70, 76, 77, 94, 98, 137, 138, 144, 173, 174, 189, 190, 209, 211, 225, 226, 228  
crumb rubber, 1, 2, 6, 220, 221, 227  
cultivation, 19, 119-121, 136, 182-185, 192, 219, 220, 228  
damping off, 137, 138  
deficiency, 18, 19, 213  
deicing, 160-162  
denitrification, 181  
disease, 5, 7, 10-12, 17, 18, 22, 29, 30, 37, 45, 51, 56, 61, 65, 76, 77, 79, 80, 87, 88, 90, 92-94, 98, 101, 102, 104, 111, 112, 125-127, 137-139, 147, 170, 171, 174, 181, 185, 191, 192, 201, 202, 205-207, 216, 219, 220, 229, 231  
drainage, 5, 30, 33-35, 112, 125, 181-186, 192, 201, 217-220, 223, 224, 226, 227  
education, 31, 53, 63, 171, 213, 214, 235  
environment, 34, 38, 63-65, 115, 116, 138, 159-162, 228, 229  
establishment, 1, 7, 38, 55, 125, 128, 130, 137, 139, 141, 143, 145, 173, 179, 202, 203, 205, 213, 216, 227, 228  
evapotranspiration, 19, 20, 70, 71, 111, 119, 185, 191  
fertilization, 38, 56, 75-77, 125, 128, 133, 147, 148, 185, 189, 231  
fungicide, 10, 28, 45, 61, 65, 79, 80, 83, 87-90, 93-95, 97, 98, 102, 107, 112, 138, 139, 170, 187, 188, 211  
fungicides, 17, 28, 61, 65, 66, 93, 98, 112, 117, 118, 131, 191-193, 203, 209, 211  
golf spikes, 60  
growing degree days, 163, 164  
growth, 1, 2, 5, 7, 8, 19, 27, 28, 30, 34, 35, 55, 57, 58, 65-67, 73, 75-77, 88, 90, 111, 112, 116, 125-127, 129, 133, 134, 137-139, 160, 163, 171, 173, 174, 182, 185, 189-192, 202, 203, 211, 215, 216, 219, 220, 225, 226, 231  
grow-in, 38, 116, 118, 185  
grubs, 45, 46, 51, 52, 123, 124, 130, 187, 188  
herbicides, 37-39, 125, 131, 163, 164, 235  
infiltration, 184, 185, 223  
integrated pest management, 29, 31, 64, 161, 165, 220  
irrigation, 1, 5, 9, 10, 19, 20, 27, 46, 53-55, 57, 65, 66, 69-71, 111, 112, 116, 119, 121, 125, 133, 135, 136, 170, 177-182, 184, 185, 191, 202, 203, 216-220, 224, 228, 231, 235, 236  
irrigation design, 177  
irrigation water use, 54  
localized dry spot, 19, 24, 25, 119  
milky spore disease, 45  
moss, 57, 135, 182

- mowing, 9, 19, 28, 73, 120, 125, 126, 128, 133, 169, 170, 181, 182, 187, 188, 191, 192, 202, 216, 219, 220, 225, 231, 235
- mowing height, 73, 126, 187, 188, 216, 219, 220
- mulch, 1, 2, 57, 58, 147-149, 151-157, 228
- mycorrhizae, 12, 16
- nematodes, 11, 12, 15, 16
- nitrate leaching, 38
- nitrates, 38
- nitrogen, 18, 19, 25, 28, 38, 73, 75-77, 87, 115, 116, 119, 121, 147, 148, 151, 152, 154-157, 181, 189, 190, 202, 231, 232
- nitrogen carriers, 19
- nitrogen rate, 148
- oxygen, 35, 111, 112, 181, 182, 185
- pesticides, 51, 53, 54, 63, 73, 115-117, 124, 125, 131, 132, 161, 170, 187, 229, 235, 236
- phosphorus, 18, 23, 24, 148
- plant growth regulators, 73, 88, 133, 189, 219
- polymer, 1
- potassium, 20, 111, 132, 148, 216, 233
- pythium, 94, 97, 111, 112, 182, 191, 202
- reduced light, 5, 8, 9, 229
- Regulation 637, 54
- rolling, 17, 18, 20-22, 120, 121, 191, 192
- rooting, 69, 70, 171, 175, 181, 183, 201, 215
- roots, 1, 12, 30, 36, 55-58, 69, 70, 111, 112, 181, 182, 184, 187, 228
- runoff, 1, 115-117, 179, 182
- salts, 111, 112, 132, 160, 161, 233
- sand, 7, 8, 10-12, 17-19, 24, 25, 33-36, 38, 59, 94, 111, 118, 119, 173-175, 180, 182-185, 216, 217, 223, 224, 226-228
- sands, 33-36, 182, 183, 226, 227
- seeding, 1, 38, 125, 137-145, 202, 216, 228
- seeding rates, 137-139, 216
- shade, 7, 8, 57, 124, 128, 129, 135, 193, 201, 202, 216, 235
- site specific management, 185
- snow mold, 10, 79, 80, 83, 87, 88, 138, 144, 147, 149, 152, 202
- sod, 1, 5, 7, 8, 53, 110, 123, 127, 182, 201, 216-218, 223, 228
- sod production, 1, 216
- sodding, 217, 227, 228
- soil layers, 184
- soil tests, 18, 148, 227
- soluble salts, 111, 112
- spikeless shoes, 59, 60
- stolons, 18, 111, 112, 228
- summer patch, 88-90, 126, 191
- thatch, 60, 111, 112, 116, 117, 124, 125, 148, 149, 152, 174, 182-185, 188, 231, 235
- tissue testing, 75, 76
- topdressing, 19, 24, 25, 34, 120, 136, 170, 182-185, 192, 202, 203, 220, 221, 227, 228
- Typhula blight, 182, 205, 206
- water use, 20, 53, 54, 70, 71, 178, 183
- wear tolerance, 5, 69, 174, 182, 183, 189, 227
- weed control, 37, 56, 131, 133, 171, 220
- wetting agent, 131, 209
- wetting agents, 131, 132
- wildlife, 53, 63, 64, 115
- worker Protection Standard, 53