INDEX

activated charcoal 123 advertising, lawn care 99-103 aeration of soil 28, 33, 41-44, 134, 135, 140, 156-158, 160 aerification (see cultivation) algae 120, 125 algicides 42, 43 allelopathy 123 anaerobic soils 41, 44, 120, 124, 125 annual bluegrass biological control of 92 competition with bentgrass 62-69, 70-77, 123 competition with Kentucky bluegrass 82, 83 effect of PGR on seedheads 82, 83 response to nitrogen 12, 15 response to sulfur 2, 3, 5, 6, 46, 48, 52 response to wet weather 158, 160, 161 seedhead production 62-65 susceptibility to disease 46, 47, 52-54 anthracnose 47, 48, 53, 54 aquatic herbicides 119 athletic field drainage 120, 121, 122 grasses for 108, 109, 161 injuries on 154, 155 management practices 108, 154, 155, 159, 161 topdressing 108 bentgrass competition with annual bluegrass 62-69, 70-77, 123 cultivation 28-33 fertilization 12-14, 16-22 response to nitrogen 12, 13, 15 response to sulfur 2, 5, 6, 46, 48, 52, 56 susceptibility to disease 38, 45, 47, 48, 50, 54-56, 93-95 topdressing 10 biological control of annual bluegrass 92 chinchbugs 146-148 disease 39, 93-95 grubs 148 pond weeds 119 black layer 41-44, 124, 125, 126 chinchbugs 146, 147, 148 clippings 2, 3, 23, 26, 62-69, 70 compaction effects on diseases 134, 136, 138 effects on trees 111, 113, 140, 144 effects on turf and soil 28-33, 134-138, 157, 158 computer use 90, 91 crabgrass 60, 61, 78-81, 130, 131 cultivation

effect on grass competition 70-77 effect on disease 38 effect on root growth 28, 29, 32, 33 for insecticide injection 34 for trees 140, 144 hollow vs solid tines 28-33 of athletic fields 109, 154, 155 soil removed by 11 to relieve compaction 120, 121, 124, 126, 137, 138, 160, 161 denitrification 157 Diazinon cancellation 148 diseases of trees 111-118, 139-145 dollarspot 47, 48, 54-56, 156, 159 drainage effect of black layer 41-44, 124, 125, 126 effect of compaction 28, 29, 32, 84, 134, 136, 159 for trees 140 of athletic fields 108, 120, 121, 122 of bunkers 96, 97 techniques 120, 121, 122 drift of herbicides 127-129 drought stress effect on necrotic ring spot 38, 39, 88 earthworms 24, 25, 27 evaporation pan 87, 88 evapotranspiration 84, 86-88 fertilization (see nitrogen, phosphorus, potassium, sulfur, iron) effect on diseases 38, 39, 42, 47, 57, 58 of athletic fields 108 of trees 113-116, 140, 144 on compacted soils 134, 135, 137, 138 fine fescue availability of seed 153 susceptibility to disease 35, 146, 147 fungicides for anthracnose 47, 48, 53, 54 dollarspot 47, 48, 54-56 melting out 45, 51, 57, 58 necrotic ring spot 38, 49 pythium 48, 49 snowmold 45 summer patch 46, 52 tree diseases 114-116, 140-142, 145 germination 158, 161 growing degree days 82, 83 growth regulators (see plant growth regulators) grubs 34, 36, 148 gypsum 138

herbicides broadleaf 127-129, 130, 131 drift 127-129 for ponds 119 post emerge 60, 61 preemerge 60, 61 tank mixing of 130, 131 use on compacted soil 138 injuries on athletic fields 154, 155 insecticides 34-36, 148 insects of turf 34-36, 146-148 trees 113, 139 iron effect on black layer 41-44, 126 irrigation and compaction 136-138 effect on black layer 42, 126 effect on turf competition 62, 63, 65, 69 of athletic fields 108, 154, 159 of trees 113-116, 140, 144 scheduling 84-89 Kentucky bluegrass availability of seed 153 compaction effects on 137 competition with annual bluegrass 82, 83 response to nitrogen 23, 25, 26 response to sulfur 2-4 rooting 78, 79, 82 susceptibility to disease 37-40, 45, 51, 57, 58 thatch 23-27 lawn care advertising 99-103 communication with customers 99-107 pesticide safety 98, 99, 149, 150 professionalism 100-105 salesmanship 132, 133 training employees 101-104, 132, 133 leaching 157 material safety data sheets 150-152 melting out 45, 51, 57, 58 minirhizotron 78, 79 moles 110 mowing 108, 109, 146, 156, 157, 159 necrotic ring spot 37-40, 49, 158 nitrogen fertilization effect on annual bluegrass 12, 13, 15 effect on bentgrass 12-14, 16-22 effect on Kentucky bluegrass 23, 25, 26 effect on species competition 62-69, 70-72, 74, 75

use after rainfall 157, 160 O. J. Noer Memorial Library 90, 91 OSHA regulations 149-152 overseeding 62-65, 72, 77, 108, 121, 158, 160, 161 perennial ryegrass availability of seed 153 compaction effects on 137 overseeding 161 response to sulfur 56 susceptibility to disease 38, 56 pesticide protective clothing 98 safety 99 use on compacted soils 134, 138 use on trees 139-145 phosphorus soil tests 7-9 turf response 7-9 phytotoxicity to fungicides 47-49 to sulfur 2, 3, 5, 46 plant growth regulators effect on species competition 62-67, 69, 71, 72, 74, 76 effect on seedheads 82, 83 use of turf 78, 142 Poa annua (see annual bluegrass) pond management 119 post emergence herbicides 60, 61, 130, 131 potassium fertilization after rainfall 157, 160 soil tests 7, 8 turf response 7, 8 preemerge herbicides 60, 61, 78-81 professionalism 100-105 protective clothing 98, 150, 151 pythium 48, 49 rainfall effects 86-88, 156, 159 red thread 49, 50 rhizomes 24 Right to Know Legislation 149-152 Ringer products effects on thatch 23-27 effects on disease 38 nitrogen response 23-27 root growth of turf 24, 28, 29, 32, 33, 39, 78, 79, 84, 86, 120, 124, 126, 134, 135, 156-158, 160 of trees 113, 118, 140, 144 Roundup use 60, 61 salesmanship 132, 133

```
sand bunkers 96, 97, 158
sand topdressing 10, 126
seed availability in 1987
                         153
seeding 158
siltation 157-160
snow mold 45, 50, 93-95
sodding 158
soil modification 138
soil moisture 28, 29, 32, 33, 39, 140, 157, 160
     basis for irrigation needs 84-86
     effect on black layer 41-44
     effect on necrotic ring spot 38, 39
soil pH 2, 3, 41, 44, 140
soil temperature 38, 41, 134
soil tests 7-9, 62, 66
sulfur
     effect on black layer 41-44, 125, 126
     effect on pH 2, 3
     turf response to 2-6, 46, 48, 52, 56, 57
summer patch 46, 52
tall fescue
     availability of seed 153
     compaction effects on 137
     susceptibility to disease
tensiometer 85
thatch 23-27, 70, 71, 74, 146, 161
topdressing 10, 108
training employees 101-104, 132, 133, 150
trees
     diseases of 111-118, 139-145
    management 111-118, 139-145
Turfgrass Information File 90, 91
U.S.G.A. Information File 90, 91
vertical mowing 70-73, 75, 77
vertical mulching 140, 144
volatilization of herbicides 127-129
wear 136, 137, 154-157
weed control in ponds 119
wetting agents 108, 138
wilting 85, 88
```