An Index to What the Greenkeeper Has to Know

By KENT BRADLEY and MELVIN B. LUCAS

One of the indications of the constant and swift progress in course maintenance methods is the negative one of this important profession not having a solitary fairly comprehensive manual or textbook in print.

Advance has been so steady and methods formerly employed without much question have been outdated by new discoveries and conditions that a textbook on course maintenance compiled 10 years ago would not reflect best greenkeeping practice today.

Yet during the past decade golf course greenkeeping has supplied the impetus and operating technique that have been adapted to gigantically costly operations in construction and maintenance of lawns, airports, parks, cemeteries and highways. The greenkeepers' leadership in these developments has not been popularly recognized nor has the extent of greenkeepers' knowledge demanded by his job been realized even by club officials with whom he is in fairly close association.

And, to tell the truth, the greenkeeper himself rarely realizes the scope of information he has to bring into focus on his job. Almost every day another question requiring a definite answer comes to his mind although he may be thinking that things are running smoothly and work temporarily is of a routine nature.

Greenkeeping Index Begun in 1923

In 1923 Bradley began compiling a file of subjects in which the country club grounds superintendent would be interested as problems of his job. Lucas, a later graduate of Dickinson's classes at Massachusetts State college and now supt., Manchester (Conn.) CC, took the Bradley original material for a cross-indexed file of grounds maintenance subjects and prepared the list herewith.

Compiling a reference library to fill out the outline of the index would be a full-time job for a librarian. It would be entirely impractical for a greenkeeper. But at least the highlights do show how extensive the greenkeeper's working knowledge must be.

Subjects Are Grouped

The figures preceding the cross-indexed subjects indicate groups as follows:


(Continued on page 80)
Introducing the new
"SWING WONDER"
and booklet
"What Is This Thing Called Swing?"
by Bea Gottlieb
A practice device to develop a conscious swing sensitivity, timing, coordination and relaxation.
The booklet, simplified and condensed, will enlighten your understanding of a golf swing. Complete set, with instructions $3.50. Box 6234 W. Palm Beach, Florida.

CUNNINGHAM TRACTOR SERVES AS BULLDOZER—The Cunningham Garden Tractor, in the hands of ingenious maintenance men, is doing double duty these days. Several have reported that their tractors, with its 30-inch snow plow attachment, make an excellent tool for light grading, filling work, etc. It is particularly useful in spreading trap sand, road and parking gravel and light contouring. Its power, easy handling and ability to work in close quarters have proved highly advantageous in golf course maintenance and snow removal.

WHAT GREENKEEPER HAS TO KNOW
(Continued from page 40)
5—Conditioners, Soil Conditioners, See Composts, Topdressings. Physical Peat.
2—Construction.
1—Costs. See Records, amortization, depreciation, replacements.
5-8—Cover crops. See Ground Cover Crops. “Green manures.”
5—Cultivation of Soil. See Tilth, Aeration.
4—Damping off. See diseases, Seeds.
1—Data: See Charts, Tables, various information, tabulated.
1—Dealers: See agents, agencies, Distributors. Subject, and List.
1-3—Depreciation, see Amortization-of capital investments - costs, replacements.
1—Diagnosis, diagnosing. (method) see

CREEPING BENT STOLONs — FROM THE MOUNTAINS OF NORTH CAROLINA
The finest and most prolific Bent Grass that has come under my observation in 35 years' experience in growing grass for putting greens. Free of weeds and clover. Place order now for fall planting.
Write for Prices and Information.
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Indications, Ecology, Turf Troubles.

1—Diary, daily work and treatments. See Records.

4—Diseases, See Blights, Diagnosis.

1-3—Distributors. See Agents, Dealers. Also Machines (list).


4—Dollar Patch, Dollar Spot. See Brown Patch, Diseases.

2—Drainage, Land.

4—Drought, See Wilt.

7—Dusts, chemical, see insecticides, fungicides.

5—Earth, Earthworms, See Entomology, Insects, Worms, Soil.

4—Ecology, Plant, See Indicators, Indications, Diagnosis, Soils.

1—Electric, Electrical, Electricity, simple fundamentals, repairs.

5—Elements, See Soil, Fertilizers, Major, Minor, elements, Chemistry.

1—Emetics, poison, see Antidotes.

7—Emulsions, See Sprays, Solutions.

9—Entomology, Study of Insects Subject. See Insects.

3—Equipment. Term applying to games and grounds furnishing. See Accessories.

Ethics.

Evaluation, prices, quality.

4—Eye Spot, See Diseases, Zonate Eye Spot.

1—Fairway’s term. Golf course fairways, areas.

4—Fertilizers, subject. Fertilizing. (Also see Methods.)


1—First Aid, to Injured. See Emetics, Antidotes, Safety Rules, Precautions.

1—Frost on grass, Frost Heave. See Winter seeding.

7—Fumigants, Fumigators, See Asphyxiants, Gasses, Poison Gasses.

1—Fundamentals, of study subjects. See “Why.”

4—Fungi, Fungus diseases, See Blights, Diseases.

7—Fungicides, See Dusts, Sprays, Mercurials. See List, (Commercial).

9—Gasses, See Asphyxiants, Fumigants, Fumigators.


1—Golf, The game of, requirements, etc.

4—Grasses.


3—Greases, See Lubricants, Oils.

1—Greens, Golf, Bowling, See Bowling Greens, Lawn Bowling.

4-5-6—Green Scum, See Algae, Diseases, Moisture, Drainage.

5—Ground, Cover Crops, See Cover Crops, Green Manures, Legumes.

5—Ground Cover Plants, (under dense shade where grass will not grow).

July, 1947
Selective Weed Killers
Dow 2-4-D Powder, 70%, 50# drums $1.65 per lb., 10# drums $1.80 per lb., freight allowed on orders of 100# or more.
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REMARKABLE NEW CLEANER FOR GOLF BALLS

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1—Grounds, Maintenance, See Maintenance, Upkeep, Paths, Roads, Parking areas, general grounds care.
4-8—Growth, plant, Growth regulators.
9—Grubs, See Entomology, Insects.
7-9—Grub-Proofing, See Insecticides, poisons, also Methods regarding.
7-8—Herbicides, See Weed Killers, Plant Killers.
7-8-4—Hormones, plant hormones.
3-6—Hose. See Irrigation, Supplies, Water hose, Garden Hose, List.
1—How to do things. See list of METHODS.
1-4—Humidity—see Weather.
3— Implements; See Tools, Special List, of, use - purpose.
2—Improvements, Improving, also see Methods list.
5-7—Indicators, Indications, See Soil Tests, Ecology, Diagnosis.
1—Information, Sources of, Books, etc. Also see Data, Tables.
1—Injury: To Persons, See First Aid.
4—Injury to Plants, Summer, Winter, Insect, Fungus, See Blights, Diseases, etc.
9—Insects. See Entomology, Bugs, Worms.
7—Insecticides, See List, also Sprays, Dusts.
6—Irrigation Subject, See Sprinkling, Watering, and Methods.
3—Irrigation, Supplies, Sprinklers, Hose, Pumps. See Lists.
2-5—Irrigation, Sub-Surface. Also see special devices for this, and Methods.
9—Japanese Beetles, See Entomology, Insects, Grubs, Beetles.
1—Job operations.
9—June Beetles, See Entomology, Insects, Grubs, Beetles.
7—K., K 2 o, See Chemistry, Fertilizers, Potassium (Kalin).
1—Landscape study.
1-2-4—Lawns. Also see Shaded, Shady Lawns.
1-2—Lawn Tennis, Game, See Tennis Courts, grass, clay, composition.
5-7—Lesser Elements, See Minor Elements, Chemistry, Fertilizers, Soils.
5-7-9—Lime, See Calcium, Alkalies, Bases, Base Exchange, Fertilizers, Nutrients.
3—Lubricants, Lubrication, see Oils, Greases, and Lubricating METHODS.
3—Machinery, Machines. See List, any device that has mechanical moving parts, hand, engine powered, tractor drawn.
1—Maintenance, See Grounds Maintenance, Upkeep, General.
5-7—Major Elements, See Soils, Chemistry, Fertilizers, Elements.
1—Management, Turf, Grounds, Labor, Acreage.
1—Manufacturers. See Lists, names, addresses, Lines produced, Accessories, Equipment, Machinery, Tools, sundries, supplies, etc.
5-7—Materials, special purpose, not otherwise classified. See Lists.
7—Mercurials, See Fungicides, dusts, sprays.
1—Methods, Special List, See How to do things. Words mostly end with “ING.”
5-7—Minor Elements, See Lesser Elements, Soils, Chemistry, Fertilizers.
1—Miscellaneous, Special, not otherwise classified, subjects.
4-5-7—Mixtures, of chemicals, seed, fertilizers, composts.
5-6—Moisture, See Soils, Drainage, Drought, Drought, Humidity, Irrigation, Rain-
fall, Weather, Watering, Sprinkling, Wilt.
9—Moles, See Ground Moles, Animal Pests.
2—Mortar, See Concrete, Cement, Portland Cement.
4-5-7—Moss, Ground, See Algae, Drainage, Fertilization, Shade.
5—Moss, Peat, See Peat Moss (baled), Sphagnum Moss, Soil Conditioners, Mulches.
3—Mowers, Hand, Powered, Tractor, Horse drawn, Reel Mowers, Sicklebar Mowers Listed under this heading, with Machinery.
5—Mulches, Leaf, Peat, Moss, Soil Conditioners, Winter Protections.
4—Mycelia, Mycelium, See Fungi, Fungus, Diseases, Blights.
5-7—Nutrients, See Soils, Fertilizers, Plant Foods.
3—Oil-s, See Greases, Lubricants, Also Sprays, Emulsions.
5-7—Organic-s, Organic Matter, Organic Materials, See Fertilizers, Soils, Mulches, Composts, Conditioners.
3—Paints.
1—Parking Areas, see Grounds, Roads, Paths.
4—Pathology, Plant Pathology, Botany, Pathological.
5—Peat, Peats, Peat Moss. See Soil Conditioners, Soils, Composts, Mulches.
7—P2O5, See Fertilizers, Phosphorous, Chemistry.
7—Plant Food-s, See Fertilizers, Nutrients.
7-8—Plant Killers, See Herbicides, Weed Killers.
4-7-8-9—Plant Sprays, See Sprays, Insecticides, Fungicides, Oils, Emulsions.
7-8-9—Poisons, See Animal Poisons, Poison Baits, Insecticides, Animal Pests.
7-9—Poison gasses, See Asphyxiants, Gasses, Animal Pests.
1—Polo Game, Polo Fields.
7—Potash, Potassium, See K, K2O, Fertilizers, Soils, Chemistry.
1—Practice greens, fields, Driving ranges.
1—Prices, See Buying, Purchasing, Evaluating, Values.
1-7—Precautions, See Safety Rules, Safety Measures.
4—Propogation-ing, See Stolonizing, Vegetating-ion.
1-7—Proportions, See Mixtures, Ratios, Rates.
1—Purchases-ing, See Buying, Prices, Values, Marketing.
1-4—Purity, Purities, See Seeds, Impurities, Minor, -Elements.
1—Putting Greens.
4—Pytheum, See Blights, Diseases.
1—Quality, See values, evaluation, buying, purchasing, marketing.
1-4-5-7—Quantity, See Rates, Amounts, Ratios.
6—Rain, Rainfall, See Weather, Irrigation, Moisture.
5-7—Rare Elements, See Minor Elements, Fertilizers, Nutrients, Soils, Chemistry.
1-4-5-7—Rates, Ratios, See Proportions, Mixtures, Amounts, Requirements.
1—Records, See Weather, Labor, Costs, Treatments, Diary, Timekeeping.
1-3-4—Repairs, Buildings, Machine Overhaul, Troubleshooting, Turf Revamping, Renovation.
7-9—Repellents, Animal Pests, Insects, Insecticides.
1—Reports, See Records, Report Making, Presenting.
4—Rhizome-s.
1—Roads, See Grounds, Paths, Parking Spaces, Parking Areas, Drives-ways.
1-4-5—Rolling, (see Methods), Compaction, Frost Heave.
4—Roots.
4—Root Stock-s.
1-4—Rough, Golf, see Areas.
1—Routine-s.
1-7—Safety Rules, Precautions in Work.
Handling Chemicals, Poisons.
1—Sand Traps, (Golf) Bunkers, Hazards.
4-8—Seeds, Grass, Cover Crop, Plow Under Crops, Weeds.
4—Seeding, see Methods list.
4—Shade, Shaded, Shady areas, lawns, ground covers, Grasses.
1—Shrubs, See Grounds, Pruning, etc.
4—Small Brown Patch, Diseases, See Dollar Spot.
4—Snow mold, See Diseases, Winter kill, Winter injury.
4—Sod, See Turf, Sod Nurseries, See Turf Nurseries, Sodding Methods.
9—Sod Web Worm, See Insects, Grubs, Entomology.
5—Soils, Subject of Special, Fundamental study.
5—Sphagnum Moss, See Peats, Peat Moss, Mulches, Soil Conditioners.
1-4-5—Spike-ed, ing, Spike Discing, Spike Rolling. See Aeration, Renovating, Cultivating, ion, Renovation, Compaction, Tilth.
7—Sprays, See Solutions, Emulsions, Nutrients.
5—Solutions, See Indications, Indicators, Fertilizers, Soils, Diagnosis.
5—Spray, See Solutions, Emulsions, Insecticides, Fungicides.
1—Spring Work, See Rolling.
1—Standards, of Maintenance, See Routine.
1-4-5—Spiked, ing, Soil, See Steriliz-ed, ing, Composts, Weeds, Insects.
4—Stolons, Stolonizing, See Propogation-ing, vegetating-ive, Grasses.
1—Study Subjects, Study Methods, See Subjects.
1—Subjects, (see above)—of Study and Discussion.
5—Subsoil.
4—Summer, Injury to turf, see Injuries.
1-2—Survey-s, ing, See Data, Tables, Charts, Areas, Maps-ing, Land, Diagnosis, Layouts, Drainage, Irrigation, Construction, Grounds.
1—Systems, See Methods, Water-Irrigation.
1—Table-s, See Survey-ing, Data, Charts, Information Tables.
1—Tee-s, See Areas, Golf.
1—Temperature, See Weather, Germination, Diseases.
1—Tennis, Tennis Courts, Game, Areas, Lawn Tennis.
1—Terms, Special category of names, expressions, also see Buying, etc.
2-4-5—Tillage-s, See Grading, Slope, Shoulder, Bank-s.
2-5—Tile, Land, See Drainage, Tiling.
3—Tools, See list, Implements, Hand Tools, Grounds, Garden, Shop.
5—Top Soil.
5—Top Dress-ing-s, See Composts, Conditioners, Mulches, Soils.
5-7-8-9—Toxic, Toxicants, Toxicity, See Soils, Poisons.
1—Transplanting, see Patching, Plugging, Sodding, Stolonizing, also Method, Flowers, Trees, Shrubs, Plants.
1—Trees.
4—Turf, See Sod, Grass, Turf Nurseries.
4—Underground Rootstocks, See Grass.
1—Upkeep, See Maintenance, Care.
1—Values, See Evaluation, Prices, Purchase, Buying, Quality.
3—Valves.
4—Viability, See Germination.
4—Vitality, See Viability, Health of Plants.
6—Water, ed, ing, See Irrigation, Sprinkling, Moisture.
5-6—Water-holding Capacity, See Soils.
8—Weeds, plants, seeds.
7-8—Weed Killers, ing, see Herbicides.
1—Weights, soil, seed, data, tables, buying.
1—“Why”—Reason-s, diagnosis, fundamentals, causes.
4—Wilt, See drought, drouth, summer injury, Irrigation, Drainage.
1-4—Winter protection-s, see Mulches, wind breaks, plant, shrub covers.
1-2-3—Winter Work, indoors, outdoors, See Seasonal.
4—Zonate Eye Spot, See Eye Spot, Diseases.

DENVER’S 6-YEAR PLAN
(Continued from page 38)

A tan tourney. Eight players will win annual tickets for two years duration, at association expense to play the municipal courses. In this two-year period, they also will get monthly private lessons from a professional, also at the expense of the golf association. This would normally conclude the training unless some individual gave such promise the group should desire to single him or her out for further training.

Rewards for Better Pupils

“Attempts will be made to get private club memberships for the boys and girls showing unusual promise at the end of this six year program.

“If the association is financially able, it plans to award a university scholarship for four years to any young golfer chosen whose parents are unable to provide higher education.

“The operation of this entire program will hinge on the financial success of the first Denver Open, according to Dawson.