

course checklist

How much equipment is enough?

by H.G. Meyers and G.C. Horn Extension Turf Specialist, Professor of Turf, respectively, University of Florida

The average 18-hole golf course costs approximately \$20-25,000 to equip, exclusive of heavy equipment such as trucks and tractors. Ask any golf course superintendent, however, what equipment is required for an 18-hole golf course and the answer will more than likely be as varied as the number of superintendents asked. The problem is that specific maintenance equipment requirements vary from one golf course to another depending upon budget allowance, amount of play, level of maintenance required and golf course design.

Generally, however, there are

certain basic types of equipment required for all golf courses with quantity being more dependent upon the number of greens being maintained rather than fairway length. For example, a nine-hole course requires three greens mowers, whereas, five to six are normally required for efficient operation on an 18-hole course.

Consideration of cost is necessary, however. Efficiency should also be carefully evaluated before purchasing any piece of equipment or where more than one machine is required. For example, a seven-gang tractor drawn fairway mowing unit is cheaper than

a nine-gang unit but the swath of cut is reduced by approximately 20 percent. Increased cutting time and labor costs soon exceed initial savings. Of course, this comparison is not valid where a nine-gang unit cannot be used for mowing fairways due to width, design, etc.

A further comparison involves a choice between the previous seven-gang tractor drawn unit and the

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Editor's note: The article and charts were reprinted from the "Florida Turf Grower," department of Ornamental Horticulture, University of Florida, Gainesville. Mr. Meyers is an extension turf specialist and edits the above publication. Mr. Horn is a professor of turf at the University of Florida.

BASIC EQUIPMENT REQUIREMENTS FOR VARIOUS GOLF COURSES

					Primary Area Use						
18-Hole Golf Course	9-Hole Golf Course	Par 3-18-Hole	Executive 18-Hole		Greens	Aprons and/or Slopes	Trees	Fairways	Roughs	Trimming—Traps, Trees, etc.	Misc.—Clubhouse, etc.
Quantity											
MOWING EQUIPMENT											
Reel											
6	3	4	5	Greensmowers	X		X				
1	1	1	1	30" Front Throw (5 blade)		X	X				X
1	1	1A	1	76" Triplex (5 or 6 blade)		X	X			X	X
1			1	7 Gang Hydraulic Fairway Unit (6 blade)				X			
or . . .											
	1B	1B		7-9 Gang (tractor drawn) Fairway Unit w/Universal Frame (6 blade)							
1C	1C	1D	1C	3-5 Gang (tractor drawn) Rough Mower w/Universal Frame (4-5 blade)					X		

A—Optional on par 3's with no sand traps.

B—9-hole and par 3 courses do not require Hydraulic Fairway Units. Both courses may substitute 5 Gang Fairway Units with Universal Frame.

C—A 72" (tractor drawn) Rotary Tow-Type or 3-Point Hitch may be substituted if roughs are not suitable for Reel Mowers, or because of grass type, a lower level of maintenance is desirable.

D—Not required where the whole area (fairways and roughs) is maintained at fairway height. Also, in this event, no riding or tractor drawn rotaries are required.

Basic Equipment

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newer seven-gang hydraulic mower/tractor combinations. Each has advantages and disadvantages that depend on the individual situation.

Following is a basic list of equipment required by 18-hole,

nine-hole, par 3-18-hole and 18-hole executive golf courses. Trade names, prices and certain specifications are purposely avoided due to multiplicity of manufacturers and models available. Also, selection of a basic piece of equipment is dependent on: job requirements, performance, price

and, in many instances, personal preference. Some golf courses manage with less equipment than is listed, whereas, others require more. These variations are normal for reasons previously stated. However, efficiency is usually sacrificed where less equipment is available for maintenance.

				Primary Area Use						
18-Hole Golf Course	9-Hole Golf Course	Par 3-18-Hole	Executive 18-Hole							
Quantity										
BASIC EQUIPMENT REQUIREMENTS FOR VARIOUS GOLF COURSES										
MOWING EQUIPMENT Cont'd.										
Rotary										
1E	1E		1E	72" (tractor drawn) Tow-Type or 3-Point Hitch Rotary Mower						X
3	2	2	3	20"-21" Rotary Mowers (hand propelled)						X X
1	1	1D	1	50"-60" Riding Rotary Mower						X X X
AERIFIERS AND SPIKERS										
1	1	1	1	Greens Aerifier (punch type)	X	X	X			
1	1	1	1	Greens Spiker	X	X	X			
1	1	1	1	Fairway Aerifier (plug type)		X	X	X		

D—Not required where the whole area (fairways and roughs) is maintained at fairway height. Also, in this event, no riding or tractor drawn rotaries are required.

E—Not necessary where Reel Mowers are used for maintenance of roughs.

VERTICAL MOWERS AND SWEEPERS										
2	1	1	2	Vertical Mowers (greens)	X	X	X			X
1	1	1	1	Self Propelled Sweeper (36")	X	X	X			X
2	1	1	2	Vacuum Sweeper (greens)	X	X	X			X
1F	1F	1F	1F	Fairway Vertical Mower (tractor drawn)		X	X	X		
1G	1G	1G	1G	Fairway Sweeper (tractor drawn), mechanical or Vacuum pick-up		X	X	X		
SOIL MIXING/HANDLING EQUIPMENT										
1	1	1	1	Soil Shredder 12" (top dressing)	X	X	X			
1	1	1	1	Soil Screen 30" (top dressing)	X	X	X			
1	1	1	1	Top Dresser (self propelled)	X	X	X			
1	1	1	1	3 Gang Power Drag Mat or several individual 3' x 5' Drag Mats	X	X	X			

F—Optional or not necessary where fairways are not Bermudagrass.

G—Fairway Vertical Mowers and Sweepers may be purchased as combined units rather than individually.

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Primary Area Use

				BASIC EQUIPMENT REQUIREMENTS FOR VARIOUS GOLF COURSES								
18-Hole Golf Course	9-Hole Golf Course	Par 3—18-Hole	Executive 18-Hole					Primary Area Use				
				Quantity				Greens	Aprons and/or Slopes	Trees	Fairways	Roughs
FERTILIZER SPREADERS*												
3	2	2	3	Small push type Cyclone Spreaders		X	X	X				X
1	1	1	1	Drop type Spreader 36"		X	X	X				X
1	1	1	1	Cyclone Spreader 3-Point Hitch or Tow-Type, 800-1000# capacity			X	X	X	X		X
SOD EQUIPMENT AND MISCELLANEOUS												
1	1	1	1	Sod Cutter		X	X	X	X	X		X
2	1	1	2	Edger							X	X

*Cyclone Spreaders may also be used for distributing seed.

SPRAY EQUIPMENT												
1	1H	1H	1	Power Spray; 10-20 GPM pump, 400 P.S.I. with 200-500 gallon tank		X	X	X	X	X		X
1	1I	1I	1	Weed Boom (20')					X	X		X
1J	1J	1J	1J	Portable Weed Boom (4'-8') mounted on wheels (bicycle wheels, etc.)		X	X	X				
1	1	1	1	2-4 Nozzle Spray Gun								
1	1	1	1	Scale (Balance) for weighing fungicides, insecticides, herbicides								
1	1	1	1	3 Gallon Hand Spray—spot weed control, etc.		X	X	X	X	X	X	X

H—A 3-wheeled turf vehicle w/portable 110 gallon Power Sprayer can be substituted especially under conditions where use of the large Power Sprayer is impractical.

I—16' Weed Boom where equipment under footnote H is used.

J—May be purchased or fabricated. Not necessary where 3-wheeled turf vehicle is used since it can be driven across green when spraying.

TRACTORS-TRUCKS-TRANSPORT VEHICLES												
1	1	1	1	Diesel or gasoline low center of gravity Tractor with 3-Point Hitch and P.T.O.		X	X	X	X	X	X	X
1	1	1K	1	½ Ton Pick Up Truck (equipment transport/service)		X	X	X	X	X	X	X
2	1	1L	2	3-wheel turf vehicles (equipment and personnel transport)		X	X	X	X	X	X	X
1			1	Tractor (turf) w/dual rear wheels and Dump Box		X	X	X	X	X	X	X
1M	1N		1M	Diesel or gasoline agricultural type Tractor with Front End Loader								

K—3-wheeled turf vehicles could be substituted because of the smaller area.

L—Not really necessary if a ½ Ton Pick Up Truck is utilized.

M—Optional—increases efficiency of soil handling and can be used for other purposes such as pulling the Power Sprayer in the event other Tractors are not available for one reason or another.

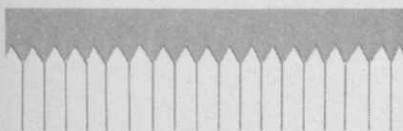
N—This is a luxury item on this size golf course. It would be more practical to purchase a detachable Front End Loader for use on the LCG Tractor with 3-Point Hitch and P.T.O.

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Quantity										
SHOP EQUIPMENT										
1			1	Reel Grinder w. Bedknife Grinder						
2	1	1	2	Lapping Machine						
Other shop equipment such as a Welder, Air Compressor, hand tools, spare parts, etc. are determined by individual requirements but should include necessary tools for repair of electrical equipment, gasoline engines, irrigation system, etc.										

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Quantity										
MISCELLANEOUS HAND TOOLS, TRAP AND WATERING EQUIPMENT										
Axes, Picks, Rakes, Shovels, Tampers, tree tools, Spades, Wheelbarrows, ladders										
24" & 36" Rakes, 1 Hose and assorted portable Sprinklers for spot watering. Number and variety determined by individual need.										
TEE EQUIPMENT**										
108	54	108	108	Tee Marker						
Number of Ball Washers, Waste Receptacles, Tee Towels, Markers and Direction Signs determined by individual need.										

**Consult Par Aid, Standard and Lewis Catalogs for complete list of Flags, Poles, Cups, Tee accessories and putting green supplies.

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Quantity										
GREEN EQUIPMENT***										
24	12	24	24	Flag Poles (includes extras)						
1	1	1	1	Numbered Flags (2 Sets)						
21	11	21	21	Putting Cups, greens (includes extras)						
21	11	21	21	Putting Cups, practice green (3 extra)						
21	21	21	21	Practice Green Markers						
18	18	18	8	Ball Bruise Repairers						
2	2	2	2	Cup Extractors						
2	2	2	2	Cup Setters						
2	2	2	2	Cup Hole Cutters						

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