Good Records — An Economic Necessity

by ALPHONSE BARAUSKAS, Avalon Lakes Golf Course, Ohio

Effective decision-making requires a foundation of objective information concerning any business operation. This is the objective of a good record-keeping system. Good recordkeeping is characteristic of most successful businesses, while inadequate records are typical of firms that fail.

To the professional turfman, one of the most common elements that he deals with daily is the "WHETHER."

Were you aware that you can do something about the WHETHER?... Weather has always been a popular topic of conversation and it probably will remain so until control of the elements is a matter of routine.

Now to a golf superintendent, the weather is not just a topic of conversation, but his master, his servant, or his downfall. We cannot control the weather at this time, but thanks to radar, weather satellites and the weather bureau in general, we can receive timely information relative to climatic conditions. We must build our daily turf management routines on this information, and marshal our labor forces and equipment to accomplish what has to be done within the time allotted us.

So our plans are laid out, the men are ready, the materials are provided, and off we go on to the golf course with a variety of tools and euqipment designed to minimize the time factor in competing with the elements by accomplishing turf management procedures in the shortest time possible.

All will go well if you can depend on the "WHETHER." No, not the weather as it relates to climatic conditions, but the WHETHER whether your equipment will start, whether it will operate long enough to complete the task. It is this WHETHER that we can and must do something about!

The key lies in an effective preventive maintenance program. In order to produce excellent turf conditions within limited budgets and soaring labor costs, the reliance on time and labor-saving machines continues to grow.

As your equipment inventories expand, so does the need for an effective preventive maintenance program and a record system.

Though Avalon's two 18-hole golf courses are maintained with equipment whose cost exceeds a quarter of a million dollars, the need for a preventive maintenance system is applicable to all golf courses regardless of the amount of equipment they may own.

Having equipment ready when it is needed is very important to the golf course superintendent, because it contributes to producing and maintaining a well-groomed golf course. In addition, the saving of dollars realized by the reduction of the total cost in maintaining a golf course must always be uppermost in the superintendent's mind. He should always remember that every \$10 saved by more efficient maintenance or repairs to his equipment, is the equivalent of \$100 collected in green fees. (For this is \$10 essentially converted into profit versus \$100 of gross income required to achieve the same.)

In a discussion between Alexander Radko, of the USGA Green Section, and our green committee Chairman, Robert Cochran, Radko mentioned that the USGA Green Section had tried on many occasions to determine the average cost for mowing 1,000 square feet of green putting surface, the cost of raking 1,000 square feet of sand, or the cost of mowing one acre of fairway. Actually, it was this initial contact with Radko that encouraged us on the quality of our system of records. This system will not only answer those questions, but also by using it you can determine the cost of maintaining your green by individual process, or all of the processes ranging from mowing to changing cups, from spraying to fertilizing, or any and all other functions that you may feel important to your overall golf course management and cost accounting.

And the facts and figures will be your figures for your golf course. Radko was not seeking this information just to make conversation, but because he realized that in order to alleviate the high cost relative to golf course operation, you must stretch your budget dollar. By keeping records you can justify the expenditures you are making, but should the inevitable budget cuts occur, you have the information at hand to show the committee how the proposed cut in funds will affect your operation in terms of trees not trimmed, drainage trenches not dug, water systems not repaired, and labor-saving equipment not purchased.

The Record System

The smooth operation of any maintenance system depends upon the understanding and

completion of certain forms and records, plus the availability of all pertinent operator, maintenance and parts manuals. These forms, records and maintenance manuals provide uniform procedures for the control, operation and maintenance of equipment. In addition, it also provides a means for gathering cost data to justify expenditures, as well as to evaluate equipment. (This is precisely the information that the green committee and board of trustees want to know.)

Though your golf course may have a variety of equipment, the system followed at the Avalon Golf Course can be used for all equipment, regardless of the variety or the amount.

The information required by these forms is provided by the operator and the mechanic. This recorded information is then analyzed by the green superintendent, who recapitulates certain entries to condense data for committee, budget and progress meetings. These records also provide a consolidated daily record of all items of equipment used in each of the turf management and golf course maintenance areas.

Interestingly enough, although the system consists of five basis forms, the majority of the key information is provided by the operator and the mechanic. This information that takes just a few minutes to record will provide the pieces to a large picture puzzle—a picture of your operation that is completed at the end of one season or annual cycle.

Key to the System

The operator's daily operation and maintenance log is the foundation of the entire record and maintenance system. It is here that we deal with the most important and critical element of any maintenance program....The operator and his equipment. (Figure #1)

It is here that the superintendent can check for work progress and problem areas. He can tell if the employee was working efficiently. He can also see if the mechanic has responded to the mechanical difficulties noted. it assigns direct responsibility for equipment to the operator and minimizes unreported maintenance problems. If used properly it will assist you greatly in doing something about the "WHETHER"—whether you will be ready to go when conditions warrant.

The employees' daily log is the only form that requires explanation to the employee. Actually, there is only one column that requires any real explanation, and that is the job code column. In order to identify a specific job, a job code number has been assigned. (Figure #2)

A four-digit number is used. The first two digits are assigned to specific areas.-We have assigned numbers in order of priorities and frequency of use. Example—The name of the golf game is "greens" so the area of greens has been assigned "01." The process performed with the greatest frequency is mowing, cutting or trimming, so this process has also been assigned "01." The combination of both numbers makes up the job number.

0101 denotes that the greens have been mowed; 0103—changing the cups on the greens; 0105—watering greens.

To give the system additional flexibility, a double "0" is provided so the employee may add in the "remarks" column any area or process not listed. This enables the superintendent to add, if he deems necessary, this new process or area noted. We have found that approximately 26 per cent of our labor hours will fall in the first 10 lines of the job code list.

The job code identification list (Figure 2) is posted in an area that the employees use for recording all work performed. The Employees' Daily Operation and Maintenance Log is located nearby in the shop. Here the men record their accomplishments of the day (Figure #1). The mechanic who makes the needed repairs or adjustments adds his "OK" in the same "remarks" column where the operator recorded his complaint.

With the exception of the employees' daily operation and maintenance form, the remaining four forms deal with just two columns. The monthly labor (Figure #3) and the annual labor (Figure #4) utilization forms deal with job numbers and total hours of labor. The monthly equipment and the annual equipment utilization forms, deal with equipment number and total hours of equipment operations.

The annual forms are the simplest to complete and the most indicative of your overall golf course operation. You can tell at a glance when you have fertilized or sprayed, watered or aerified, together with a manhour figure that tells you the cost of any specific operation, or the equipment used in performing these tasks. Beginning with the daily log, we shall now see how these forms are utilized.

The preventive maintenance requirements are geared to the information gathered from these forms. This data indicates the total hours of operation for each item of equipment and enables the superintendent to forecast engine overhaul requirements and specific scheduled maintenance. It also permits him to project equipment replacement needs.

The annual forms enable you to review items of equipment that have not been used to determine if the lack of hours was due to lengthy down-time or because of an inferior product or a change of requirements. Those items that show a high usage factor may warrant the purchase of a more efficient machine that may pay for itself due to less manhours used in accomplishing the same task.

The seasonal needs and usage of specific

equipment are apparent, and this information is used to schedule equipment for maintenance, and also when these items can be serviced for storage to prevent deterioration because of idle equipment. The frequency of use determines the frequency and type of service your equipment should receive.

The Annual Labor Utilization, together with the Annual Equipment Forms, provide a composite picture record of your complete operation. It is a tool that you can use to convince your Green Committee in any area where they may need convincing. Our records were the basis for the purchase of a new bunker rake, and with the passing of one season, our records show that the cost of the machine was more than paid for by the man-hour reduction in this area of operation.

We must constantly evaluate our overall operation and the effectiveness of the equipment we use in golf course maintenance, for today's newest design is tomorrow's obsolescence.

By reviewing your equipment records you will find that a great deal of your special

equipment will fall into the category of "seldom used." Your records, together with your turf management requirements, will help you decide if ownership is really economical. (Sometimes rental cost of equipment is less than the interest cost on the funds required to make purchase of certain specialized, seldomused equipment.) Though labor saving equipment is important, the total labor costs will continue to be the primary indicator of a successfully managed business.

In order to control operational costs, the golf course superintendent must supervise his employees efficiently and monitor his over-all operation constantly. A preventive maintenance system and a record system (other than those notes on pads provided by your friendly salesmen) are essential.

As a rope is made strong by weaving and intertwining a series of individual strands, so the weaving and intertwining of your preventive maintenance, record system, and personal supervision, gives your overall operation strength and efficiency, and also assists you in doing something about the "WHETHER."

Figure #1 EMPLOYEE'S DAILY OPERATION AND MAINTENANCE LOG

Avalon Lakes Golf Course

Date June 7, 1972

INSPECT EQUIPMENT PRIOR TO USE

Employee	Equipment Number	Job Number	Labor	Hours Equipment	Fuel Oil	Remarks Repairs Required
ULP	A-17	02-01	3	21/2	2 gal.	ок
Bill	A-18	01-01	3	3	2 gal.	ОК
ТОМ	A-19	01-01	3	21/2	2 gal.	Hyd. Leak-Rt. Mower (OK Joe P.)
BONES	A-24 A-40	01-06	5	41/2	10 gal.	OK-Back 9
BART	A-250					
	A-80	01-05	2	1 ¹ /2	2 gal.	1-3-5 Green
ULP	A-21	03-01	6	5	10 gal.	L. Wing Reel Hit Stone
JOHN	A-25 A-45	04-01	101/2	91⁄2	10 gal.	ок
ZEKE	A-110	11-01	2	1 ¹ /2	1 gal.	ок
JOE		10-10	2			
JOE		10-11	3			
JOE	_	10-12	3			
DEAL	_	19-00	9			Supervised Athletic Field
						Constr. For Church
AL	_	31-31	2			
AL	-	20-11	6			
Daily Total			59½		39 gal.	

WEATHER: Sunny 50°-80°, 52% Rel. Humidity

SERVICE EQUIPMENT PRIOR TO SECURING

REPORT ALL DISCREPANCIES NOTED

Figure #2 AVALON GOLF INC.

Figure #2 AVALON GOLF	INC.		
		No. Process	28-Spiking
Job Areas		01-Mowing-Cutting-Trimming	29-Sweeping
01-Greens	27-Standard Golf Course	02-Changing "T" Markers-Trash	
02-Tees & Collars	Equipment	Cans-Towels-Ball Washers	31-Administrative
03-Fairways	28-Bag Room	03-Changing Cups	32-Hauling
04-Roughs	29-	04-Raking	33-Capital Improvement
05-Sand Traps	30-Aprons & "T" Banks	05-Watering	34-Steam Cleaning
06-Driving Range	31-Records	06-Applying Fungicides	35-Snow Removal
07-Picnic grounds	32-Payroll	07-Applying Herbicides	36-Sharpening
08-Club House	33-	08-Applying Insecticides	37-Ball Retreiving
09-Club House Lawn & Parking	ن 34-	09-Fertilizing	38-General Supervision
Lot	35-	10-General Shop Work	39-Parts Run
10-Maintenance Building	36-	11-Repair or Equipment	40-Trenching
11-Avalon Inn, Lawn & Parking	د 37-	12-PM of Equipment	41-Rolling
Lot	38-	13-Clean Up	42-Disking
12-Cart Building	39-	14-Painting	43-Cultivating
13-Cart Paths	40-	15-Weed Control	44-Transplanting
14-Trees, Ornamentals	41-	16-Edging	45-Welding
15-Lakes	42-	17-Leaf Removal	46-Soil Shredding
16-Irrigation System	43-	18-Seeding	47-Meetings
17-Drainage System	44-	19-Sodding	48-Loading
18-Shelter Houses	45-	20-Aerifying	49-Job Training
19-Public Relations Project	46-	21-Verti-Grooving	50-Course Inspection
20-Carts	47-	22-Verti-Cutting	51-Applying Wetting Agents
21-Tournament Special	48-	23-Top Dressing	00-Areas Not Covered
22-Tennis Court Área	49-	24-Dragging	(Describe in Remarks Column)
23-Bridges	50-	25-Blowing	
24-General Office-37th Hole	51-	26-Clean Up Mowing	*Awaiting Assignment
25-Pro Shop—Avalon Inn	00-Areas Not Covered	27-Liming	**Equipment Breakdown
26-Woodlands	(Describe in Remarks Column)		

Figure #3 AVALON LAKES GOLF COURSE

Monthly Labor Utilization Record

MONTH: June 1972

Job Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		Total Hours
01-01	5	7	5	4	11	4	6	8		7	6	-	7	7	3				6	5				5		6	3	6		6		165
01-05	6	3	l I		3		2	2		12	7		8	2	8					3			4	5						10		75
01-06			1		10	6	5					1					11			4		6	9									51
02-01	9			2	9		3	2	4			15			17		8		7		11			3	1 1			9				110
03-01	7	2			7		6							9			1	4		4		7			5			7		3		61
04-01		9	13	6	10	4	101/2	7	11			13			8				5		[31/2		4			4			2		110
10-10	4	4	3	4	3	2	2		3		4		6		5		5		6		5		5		5		5		4	5		80
10-11	11	12	11	8	11	5	3		11		10			6		16	20	14	11	10		12	8		8	5		10	9			211
10-12		1			2		3		l '									_						2			3	_	2			13
11-01				6			2				3		1					4			l I	1	3	_					3			23
19-00			1		[1	9		1	1																					}	9
20-11							6				4						4					8					6					28

Figure #4 ANNUAL LABOR UTILIZATION RECORD

1972

Job													Total Hours			
Number	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Avalon	Lakes		
01-01		96	186	199	195	206	1111/2	50½	7				1051			
	20	86	148	165	175	162	196½	891/2	5 ¹ /2					10471/2		
01-05			28	62	110	97										
			84	75	75	110										
01-06		26	26	12	32	16										
		20	38	51	57	32										
02-01		49	100	108	95	89										
		48	78	110	96	97										
03-01		19	102	85	93	41		ļ								
		17	63	61	48	36										
04-01	4	20	138	139	149	80										
		3	175	110	113	86										
11-01																
		40	65	72	25	52										
10-10	100	110	50	20	30	70										
	140	150	72	60	100	60										
10-12	7	5	10	11	10	12										
	11	5	10	13	12	14										