

## THE ENERGY CRISIS: GOLF COURSE IMPLICATIONS

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The most important bit of advice I can give you about the energy crisis and its implications for golf courses, in my opinion, is "stay cool." I know you've been hearing the same thing from others. But when they say "stay cool" they are asking you to cut back on heating. What I'm suggesting is that you maintain your objectivity and not let the uncertainty and confusion that has built up these past six months stampede you into the abandonment of sound, normal management practices. And, don't be an alarmist, and don't spread unfounded rumors! Check your facts and read with care.

There is no present source of information available to tell us how much oil there is in this country, what amount is coming in and what our real shortfall, if any, may be. The lack of qualified data has led to confusion and uncertainty. But there are some hard facts and opinions borne out by the experience of others. And we may use this to arrive at sound judgments.

What we must do, I feel, is assess the short-term implications of the energy crisis and deal with them. We can and should prepare long term contingency plans for future emergencies but let us first turn our attention to measuring the problems we have here and now. This action will help to provide solutions for long range problems.

How important are fuel costs to golf course superintendents across the country? In preparation for this meeting the Toro Market Planning Department conducted a survey of a number of superintendents whose courses range from Florida to the state of Washington.

The answers from this geographic sample were most enlightening and confirmed a long held view of mine -- that golf course superintendents, because of the very nature of their business, are excellent planners. They plan their operational programs, develop alternate plans in event of budget curtailment, carefully weigh all conditions, all situations and all alternatives and then choose the best program for their particular operation. For the turfgrass manager must know how much it costs him to grow and to maintain his turfgrass facility at the standard or level desired by his club or his controlling organization. He must know what his expenditures for equipment and supplies produce in terms of lower operating costs. And he must be prepared to defend his budget. In short, he must utilize all of his managerial skills to analyze each maintenance operation and to plan for efficiency.

Fuel costs, they informed us, make up only two to three per cent of the total golf course budget. And even in those instances where the cutback in their fuel supplies was as high as one-fourth of pre-crisis deliveries, the superintendents canvassed foresaw few major problems in continuing a high level of maintenance for their courses.

Unless the supply situation gets so critical that the country must resort to rationing, these men saw no reason for major modification or alteration of their

normal operating procedures.

For they recognize that maintenance will be more important than ever -- not only to ensure the best possible playing conditions but also to protect the heavy investment in property values that members have made.

The one certainty we can look for from the energy crisis is an increase in play on our golf courses. Recreational travel -- whether by car or by plane -- has already been affected. Flight schedules have been cut back and those planes that take off are almost fully loaded. We can look for a new tightening up of baggage allowances for air travel. As for the automobile, few drivers want to take an extended pleasure trip that includes the risk of being stranded en route. That means the green areas close to home -- the parks and the golf courses -- will get the brunt of the recreational traffic. Heavier play will put greater stress on fairways and greens which can only be countered with good maintenance practices and careful planning of all operational activity.

I'm sure you already see where I am leading you: the energy crisis, at least for now, presents -- not a threat to the golf courses and other recreational facilities but a real opportunity to provide more service than ever before to the members and users of all turf facilities.

Far too frequently we accept the first, pessimistic view of a problem. Too few of us try to look at the situation from more than one angle. We are familiar with the man who tells us his cup is half-empty. We must learn to remind ourselves that his cup is also half-full.

A shift in your point of view can sometimes work wonders. Rick, my son, told me a story a few days ago that demonstrates that thesis beautifully.

Ezra was a farmer, as his father had been, and his grandfather before that. And one day Ezra did a most untraditional thing -- he went to see his local banker about a loan. The banker asked if Ezra was in trouble? No -- just wanted to borrow some money. The banker allowed that this was possible. But, he couldn't understand why. They had never loaned money to Ezra's father or grandfather and he was surprised that Ezra needed money. He felt he should explain that when a bank loaned money they charged interest and required "collateral".

Ezra said he understood. So, the banker asked how much money he needed. "One hundred," said Ezra. Somewhat taken aback, the banker said, "Well, we take our interest out first and you'll get only \$92.00 since the interest rate is 8 percent. Did Ezra need the \$100? No, the \$92.00 was satisfactory, and he produced a certificate for 1,000 shares of General Motors stock as collateral.

The banker protested that this was much greater than was required. Ezra insisted that the certificate be accepted and held until he paid off the loan in a year's time. The loan was consummated.

The banker was highly amused at Ezra's naivete and told the story around town. Soon it got back to Lucy, Ezra's wife, and she was furious. That night she proceeded to tell Ezra he was the laughing stock of the community. Whereupon Ezra said, "Now Lucy, you just let them laugh. Last year that banker charged me \$25.00 to keep that certificate in the bank's vault!"

Ezra sets us a fine example of creative problem-solving. And there is a continuing need to exercise this type of ingenuity. The superintendent must examine the performance of his equipment, his operating procedures and his maintenance

programs. In short, must study all facets of his programs and develop plans to ensure efficiencies at all levels. But fuel costs and prices, at this juncture, do not appear to constitute a serious enough problem to call on the Ezra's among us for ingenious solutions to the energy crisis. A straightforward, simple approach seems to be all that is called for.

Let me quote some of the replies we received in our survey to the question: What effect has the energy crisis had on your course? A man in Pennsylvania said his fuel supplies had been cut back 25 per cent since last September. He had already revised his maintenance schedules and he felt confident that his crew could accomplish everything that had to be done with the 75 per cent of last year's fuel supplies that he had been promised.

A Florida superintendent operates close to 150 pieces of gas-powered equipment. He's getting 15 per cent less fuel but has had no problems thus far and no trouble getting fuel.

If supplies should be cut further or rationing instituted, what would they do? Most of those responding said they would reduce the maintenance of the rough areas and work to continue the normal operations on tees, greens and fairways. Should the situation tighten even further, they would consider altering the mowing frequencies and fertilizer applications on fairways and roughs, and look for alternate power sources.

Higher fuel costs, they all agree, would send them looking for equipment that gets the job done better with less men -- labor-saving, multipurpose equipment, possibly diesel-powered.

The deep conviction of golf course superintendents that highly mechanized maintenance equipment is the most effective way to reduce labor costs and keep their budgets in balance has begun to have some effect on golf course architects as well. A few years ago, such maintenance needs were rarely even considered by architects. Today, you'll find on a number of courses that traps are placed further away from greens than they used to be in order to accommodate fringe trimmers. There are less fingers in the traps so that sand raking machines can operate more efficiently. Other signs that architects are keeping maintenance needs in mind when they design are gentle slopes on and away from tees and large aprons on the greens.

The common thread that runs through all the reports was that labor costs far outweigh fuel costs. Over the past several years, the most rapidly rising cost factor on the golf course has been labor. In 1972 alone, according to GOLFDOM Magazine, this cost component rose 12 per cent. Any increase in fuel costs only makes it that much more important, they said, to reduce labor costs through the use of sophisticated, labor-saving equipment.

Another key question was "which of your maintenance units are most productive, that is most economical to operate?" Three machines were cited most often: the Parkmaster, which is the largest capacity mower we produce; the Greensmaster 3, which is probably the most versatile; and the Sandpro which has made possible more savings in man/hours than any one piece of comparable equipment.

Don Ward, superintendent of the Pine Tree Golf Course at Boynton Beach, Florida, offers a dramatic case history of the relative importance of labor costs

to fuel costs. A few years ago, he had a 12-man crew which he has been able to cut back to nine men with the use of sophisticated equipment. Don pointed out that a 10 cent hourly raise for his crew adds \$3,000 a year to his budget. Excess fuel costs amounted to one-third this sum. Labor savings, Don concludes, are more important than rising fuel costs.

Nevertheless, there are a number of things golf course superintendents can do to conserve fuel while insuring the top quality turf that clubs' members have learned to expect and appreciate. The first of these is to select the most efficient piece of equipment for each job. Generally, reel mowers and sickle bar mowers are more efficient than rotary or flail mowers. The scissors action of the reel not only cuts better but requires less power. Data developed by our engineering division show several significant points with regard to equipment selection and fuel consumption.

For example, the Toro 70 inch Professional, which is a reel mower, is capable of cutting a 70 inch swath of grass with a 6.25 horsepower engine, while a Trojan -- which is a rotary -- has a 14 horsepower engine for a 60 inch width of cut. The 70 inch Pro cannot be used for all trimming operations, but where fuel supplies are critical, it makes good sense to use the smaller engine wherever possible. With the same mowing speed, reel mowers will use up to 50 per cent less fuel per acre of cut grass than rotary mowers.

The number of blades in a reel not only affects the quality of cut, but also the fuel consumption. A five-bladed reel will use 8 to 12 per cent less power and fuel than a six-bladed reel. However, determining the quality of cut for a given area is something only the superintendent can do, so it is up to him to decide if he can take advantage of this fuel-saving opportunity by using fewer blades on the reels.

Diesel fuel generally costs less than gasoline and the diesel engine has proved itself to be from 20 to 25 per cent more efficient than the gasoline engine, which means fewer gallons to do a given task. Preliminary tests on the Toro Parkmaster indicate that between 400 and 600 hours of use per year are required to justify the additional cost of a diesel engine. But the increase in efficiency may be sufficient reason to consider diesel power when purchasing new equipment. And there is at least one more consideration; your stock of diesel fuel is not as apt to disappear, through theft, as gasoline.

If you will permit me to state the obvious, in this review of steps to save fuel, let me say again that it is more efficient to use one larger piece of equipment than to use two or more smaller mowers. The riding Greensmaster can cover a given area in the same time that it takes three to four walk Greensmowers. While a nine-gang fairway mower, although it uses five to 10 per cent more fuel than a seven-unit machine, will increase mowing capacity by 20 per cent.

I hardly need to remind you that clean, properly adjusted equipment, and sharp blades, require less power and therefore use less fuel. But perhaps you have not thought of some of these mowing practices that could also save fuel:

- ... plan mowing patterns that require the least amount of transport between locations.
- ... use the least amount of overlap consistent with the skills of your operators.

... by selecting the height of cut best suited for each area, you may be able to increase heights -- particularly in the roughs -- and thereby add one or two days to your mowing cycle.

What of the future? The very reputable English magazine, THE ECONOMIST, predicted this past week that the world will have an oil glut by 1980, triggered in large measure by the current crisis. The oil-consuming nations have all instituted methods, either mandatory or voluntary, to save on fuel and to search out new oil supplies along with other sources of energy. And as a result, THE ECONOMIST states, we will once again have enough oil to drive down prices.

Whether we reach that state of an over-abundance of oil or not, I do believe the habits of fuel conservation that we are now learning, will become our normal mode of behavior. The lesson has been made very clear that we can no longer afford to waste the resources that this country of ours has given us in such bountiful measure. It is a rude shock for an American who has always been told that "nothing is impossible," to discover that there are limitations.

Perhaps we should take a look at Europe where expensive fuel has been a fact of life for a long time and see how they manage. Only a few days ago, the cost of gasoline in France rose to \$1.30 a gallon, an all-time high for that country.

Although the situations are not truly analogous, here and in Europe, we can derive some insights from a study of how the Europeans have coped with the short-ages that now confront us. Although the development of golf courses on the continent has lagged far behind ours, the Europeans have a more highly developed system of green belts serving high population density areas. And those green belts -- small parks and wooded areas mostly -- are heavily used.

We can look for that same kind of increased use in and near our heavily populated centers. We should, of course, expect to see some changes in our life styles. We are a people in love with travel and movement. And if our access to free wheeling cars and a sky full of planes is diminished, I believe we will have a renaissance of hiking and hosteling and cross-country skiing. Look for more lawn games and perhaps the return of bowling greens to our towns.

We are truly fortunate to have in this country more than 11,000 golf courses. That network is, in my opinion, a national treasure, one that will increase in importance to the people of this country as we move further into the new age of short-ages.

As the demands on these facilities increase, and they are bound to, we will have to keep pace with new turf management techniques and with new products. The turfgrass industry has a proud record of accomplishment for the past quarter of a century. We have seen such achievements as new warm and cool season turfgrasses, new fertilizers, new pesticides, fungicides, insecticides and herbicides, and new maintenance equipment. And that kind of developmental work goes on and will provide the basis for continually satisfactory turfgrass areas.

Finally, the energy crisis provides turfgrass managers with their greatest challenge and their greatest opportunity in years. The production and maintenance of good turfgrass facilities can only grow in importance, for those facilities are a vital and necessary part of our way of life.

## SUMMARY

In summary the energy situation does not appear to have reached crisis levels in so far as golf course operations are concerned at this point in time. Superintendents must "keep cool," remain objective and not become alarmists. In addition the following statement, (presented as slides) serve to summarize the energy crisis implications for golf courses:

- ... Increasing costs - materials, supplies, labor
- ... Delays in delivery of products, parts, whole goods and supplies.
- ... Few actual shortages.  
Exceptions: Some petro chemical products.  
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- ... Operating costs increasing.
- ... Labor highest cost item in budget and offers major opportunity for relief of budgetary pressures resulting from increased costs.
- ... Labor saving equipment a critical consideration and need.  
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- ... Fuel costs: 2 - 3% of total maintenance budget.
- ... Fuel cutback: - - - 10 - 25%
- ... Some course layouts being changes to accommodate high capacity equipment.  
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- ... Changes in working hours to fit car pools and other transportation schedules.
- ... Increased play and more intensive use of all turfgrass facilities.
- ... Management. Critical need for improvement of all managerial talents.  
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- ... Necessary to recognize that turf facilities are economic entities and their investments and operating decisions must be predicated on sound business judgment.
- ... Opportunity: Increased challenges and increased opportunity for all involved with turfgrass.  
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