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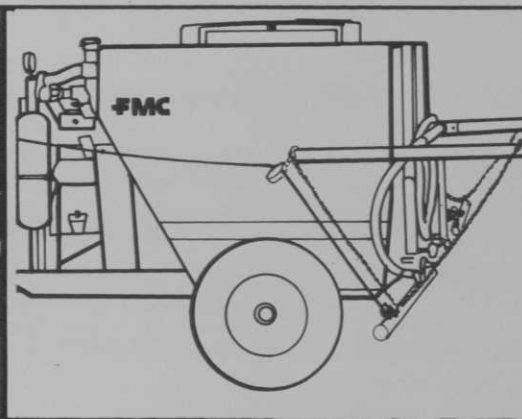
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Partition/p.8

Sprayers/p.12

Herbicides/p.22

golf business/march

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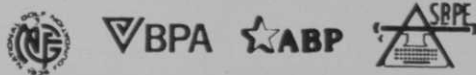
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FRONT COVER:

The dandelions in the foreground will soon 'be no more'. The right herbicide and a well-maintained sprayer are necessary to make this a 'routine' task.

Clippings

Brief bits of news from in and around the golf business.

Setting a precedent, a U.S. circuit court in Texas has ordered the employer of a national guardsman to rearrange the guardsman's work schedule so he can work a full 40 hours during weeks when he is required to attend military training. The court held that the veterans' reemployment rights law requires employers to "treat reservists as if they were constructively present during their reserve duty. . . ." "This construction not only conforms to the Congressional intent that employees not be penalized for serving their country," the judge said, "but also prevents the statute from being rendered a nullity."

In this section of the December issue of GOLF BUSINESS, we ran an item stating that Dr. Roy Bond had found a type of fungus that coats sand grains with a water repellent material. We have received a letter from Aquatrols Corporation of America stating that neither of their products, Aquagro nor Hydro-Wet, were used in Dr. Bond's studies. Robert Moore, president of Aquatrols, further states that "the work of Drs. Beard & Rieke of Michigan State University and Dr. Wilkinson of Ohio State University found these wetting agents to be very effective in overcoming the water-repellant layer product produced by a fungus on the sand grains found both in prepared golf greens, and in natural sandy soils."

Lake City Community College in Lake City, Florida recently had a visit from U.S. Senator Dick Stone. Stone was interested in seeing how federal funds were spent in training persons in the art and science of greenkeeping. "There is a direct relationship of the game of golf to the tourist industry of Florida," Stone said. "Adequately designed and well manicured golf courses play a vital role in the state's economy." The Golf Course Operations program at LCCC recently received a federal grant for \$23,000 to purchase needed equipment.

A movie that centers around a golf course is being filmed on Rolling Hills Country Club in Ft. Lauderdale, Florida. "Caddy-

shack" has an impressive lineup of comedians including Chevy Chase, Rodney Dangerfield, Ted Knight, Bill Murray and Michael O'Keefe. Producer Doug Kenney said that he wanted to make a movie about his caddy days at Indian Hill Country Club in Chicago.

The Florida Municipal Golf Course Association has been officially formed, according to an article in the "South Florida Green". The purpose of the association is to foster a general relationship, and an exchange of ideas, procedures and operations to benefit municipality operating golf courses. Any interested party can contact Bill Haycock, Dubsread Golf Facility, City of Orlando, 549 West Par Street, Orlando, FL 32804.

The FFR Cooperative in W.

Lafayette, Indiana has released "Plush Kentucky bluegrass. Plush was developed from germplasm from the New Jersey Agricultural Experiment Station. According to the registration notice in the Nov./Dec. 1979 issue of "Crop Science", Plush is a moderately low growing, leafy, turf-type bluegrass with medium texture, good vigor, persistence, density and aggressiveness, and medium green color. It has demonstrated good resistance to stripe smut and moderately good resistance to leaf spot and stem rust.

M. L. "Bud" Rader, formerly the golf course superintendent at the Wichita CC has joined Robison's Lawn & Golf, based in Kansas City. Rader will be calling on accounts in the western half of Kansas. Robison's line includes Cushman, Jacobsen and Rainbird plus many other maintenance and supply items.

The Davis Division of J I Case Company has changed its name to

J I Case Light Equipment Division. Products will now sell under the Case name. Vibromax is also being discontinued and will be replaced by the Case name. The Case Light Equipment Division is based in Wichita, Kansas.

Boots Hercules Agrochemicals Company has announced that technical acid and 2,4-DP will be offered in addition to Nitroform slow-release fertilizer, as part of its line of turf and horticultural products for 1980. MCPP and 2,4-DP are produced by The Boots Co., Ltd., of England. Nitroform ureaform nitrogen (38-0-0) has been manufactured and marketed by Hercules Inc., of Wilmington, Del., for nearly 20 years.

Philip Taylor has been named general manager, service, for Jacobsen Division of Textron Inc. He will be responsible for administration of domestic and international service for consumer and turf products, including warranties, training, and manuals and other service publications.

Idea file

Ball washer maintenance the fast and easy way

By Buzz Howell, Superintendent
Athens Country Club
Athens, Georgia

Changing the water in ball washers is a time consuming job. With the piece of equipment we have put together at Athens CC, one man can change the water in ball washers on 18 tees, put out clean towels, and change the tee markers in about an hour and a half. If we add changing cups to that, it takes a little over two hours.

We took a 10-year-old E-Z-Go golf car, removed the bag racks, and stripped it down. Behind the regular seats we mounted a 15-gallon beer keg which had been disposed of at the club house. We bought a Jackrabbit hand pump with



two rubber hoses, one for intake and one for output.

When changing the water in a ball washer, we pull the cart up alongside, drain the old water from the washer, put the hose from the beer keg in the washer and crank the pump. In less than 30 seconds, the washer is full. Then we add the detergent and change the towel. The man will change the tee markers on the same route.

During the summer months, when we change water three times a week, this saves a lot of time. During the winter we drop back to once or twice every two weeks because we're not getting the same volume of play. The equipment makes this a quick, efficient trip.

We had used a plastic jug in the past and it proved awkward. We tried the hose from a snap coupler on the irrigation system at each tee and the pressure was too great. It was a messy situation.

This is also a gimmick that motivates a man to do a good job. Plus he has everything he needs on the cart. One filling of the tank will do all 18 of our washers. We have the medium sized Par Aide models. This piece of equipment solved a problem for us and now, instead of a chore, the job is easy.

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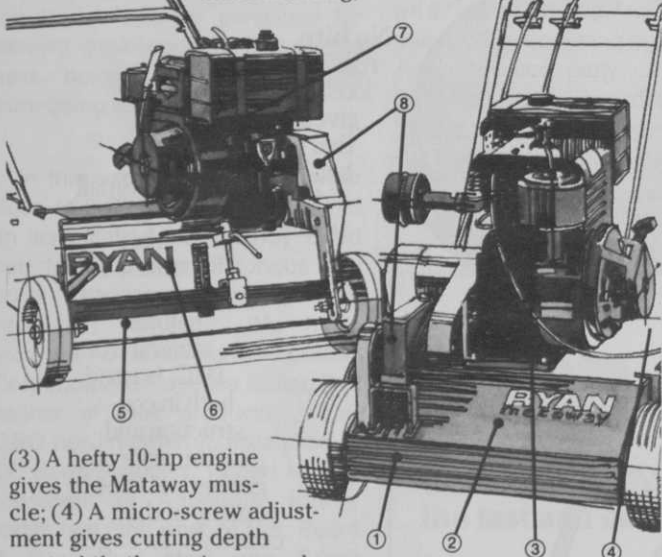


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7-hp Ren-O-Thin IV engine, or the economical 5-hp Ren-O-Thin III; (8) All Ryan power rakes are built to deflect debris from the operator as they power rake.

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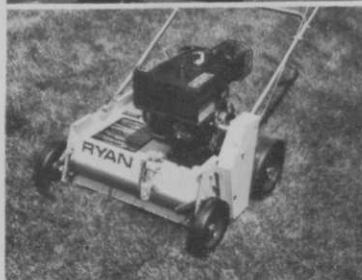
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News

New minimum wage takes effect

A new federal minimum wage of \$3.10 took effect January 1, of this year. It was an increase from \$2.90 and will affect more than 5 million workers. The percentage of tip credit which can be applied toward the minimum wage for tipped employees was reduced at the same time from 45 to 40 percent. The government defines tipped employees as those who receive regularly and customarily, more than \$30 a month in tips. The annual gross volume of business done now requires \$325,000 before employers are required to pay minimum wage. This was a raise from \$275,000. The dollar volume will further increase to \$362,000 after Dec. 31, 1981.

In addition, the Labor Department has announced that certain state and local government activities will now come under the minimum wage and overtime requirements of the Fair Labor Standards Act. Eight activities are listed, including production and sale of organic fertilizer as a by-product of sewerage processing, and production, cultivation, growing or harvesting of agricultural commodities for sale to consumers.

CC drinking water may need testing

If you don't get drinking water from a city or county water system, do have your own private water supply, served drinking water to an average of at least 25 people daily during at least 60 days of the year and most of your customers are travelers or occasional users of your water (not permanent residents), you might now have a "non-community water system". You could be required by law to test the water.

The American Water Works Association has a booklet entitled "Safe Water" which describes tests and explains how to monitor drinking water regularly. You can contact them at 6666 W. Quincy Ave., Denver, CO 80235. The booklet is \$1.50.

Federal contractors to lose private dues

The Department of Labor's

Office of Federal Contract Compliance Programs (OFCCP) has proposed rules that would bar federal contractors from paying employee dues to private clubs with discriminatory membership practices policies. OFCCP contends that the rules would eliminate the unfair job advantage which members of discriminatory organizations have over non-members and that those barred from club membership because of their race, color, sex, religion, or national origin are often restricted in job opportunities, because those who belong to such clubs have access to valuable business connections and promotional potential.

Under the new proposal, employers would have to document whether or not they paid membership fees to biased clubs and, if so, whether any resulting business or professional advantage accrued to subsidized employees.

The National Club Association is opposed to the proposal and is asking for a concerted effort for members to voice their opposition to their Senators and Congressmen.

The proposal was scheduled to be printed in the January 22, "Federal Register." Written comments will be accepted for 60 days following. Comments and questions should be directed to E.E. Mitchell, Director, Division of Program Policy, Office of Federal Contract Compliance Program, U.S. Dept. of Labor, Washington D.C. 20210, phone 202/523-9426.

Gypsy moths trapped in two new states

Gypsy moths were trapped in Oregon and Nebraska for the first time in 1979. There were also 25 counties in other states that reported trapping gypsy moths for the first time. These included Los Angeles and Santa Barbara counties in California; Orange and Hernando counties in Florida; Dekalb, Henry and Jefferson counties in Illinois; Garrett county in Maryland; Kalamazoo, Lake and Muskegon counties in Michigan; Dakota county in Minnesota; Craven county in North Carolina; Brown, Clark, Huron, Medina and Ottawa counties in Ohio; Greens, Mercer and Washington counties in Pennsylvania; Georgetwon country in South Carolina; and in Culpeper, Floyd and Montgomery counties, Virginia.

A moth was caught in each of two traps in Clackamas county, Oregon, and in a trap in Lancaster county near Lincoln, Nebraska.

Superintendent skills

By Ronald C. Frame



A management consultant from Oklahoma City, Ron Frame has conducted seminars for GCSAA for four years and for the Southern Turfgrass Association for

two years. He has consulted directly for a wide variety of firms and was with the University of Oklahoma Health Sciences Center, Director of Human Resource Management and lecturer in health administration. He has authored a management manual for GCSAA, and has authored or co-authored various professional journals in the hospital and banking field.

Management: Teamwork and tools, part 1

In doing the job for which he was hired, the superintendent requires the services of an assortment of rather diverse team members, members which may wear wheels and chew up grass, may come in bags, jugs or cans and raise havoc with critters and weeds, or may suck water out of the ground and spit it out through a pipe, or may turn the fairways white in the winter and green in the spring.

At times, recalcitrant but mostly cooperative, these particular team members are generally not much of a problem. With careful selection, proper maintenance and an awareness of what might be, these mechanical, chemical and natural members can and do contribute, as physical resources, to the expanding effectiveness of the human resources without whom member tools of the trade are totally ineffective.

To benefit the golf course through the use of highly complex chemicals, hardware and environmental systems, the superintendent has a demanding technological role where pure knowledge and good judgement has a significant impact on the bottom line of the balance sheet, thus the continued existence of the course.

But team membership extends beyond these important physical resources and the technical criteria important to selecting a superinten-

dent extends past their use and application. The superintendent must also master the trade of people management in addition to thing management, and this discipline opens the mind to the most formidable members of the team; the crew.

We know about the importance of equipment maintenance, both preventive and reactive systems, and of the necessity of the application of a high degree of technical ability necessary to keep things running well. But too seldom does an equal awareness and understanding of the need for systems of crew people - maintenance, both preventive and reactive, match the need. Here, in the people - team members - aspects of the job, the superintendent must become the MANAGEMENT TECHNICIAN, wielding MANAGEMENT tools to assure the proper maintenance of the course's most costly resource - people.

The requirements of the management process in achieving the goals of the golf course truly requires a team effort. These goals, whether generated from the superintendent's own standards or passed down from on high, must be shared goals shared with the team - and certain tools must be used to keep the team working together. We know the role of tools in keeping equipment and supplies in working order; this and a following article will deal with tools and concepts necessary to keeping the crew in working order. And a discussion of goals is a good place to start.

Associated with any human approach to a task, there are two immediate, important and obvious questions that need answering. First, what is the job - what needs to be done? Second, how best to do it? As a superintendent, these questions are answered in the process of first assigning the task. It's natural; if one wants it done, one tells them what and how.

In a third question, perhaps not so obvious, but probably more critical to human performance in the long run, is WHY the task needs to be done. Our children, too young to know better, will ask "why, why, why." As adults they won't ask "why" so readily, but the need to know "why" is still there and is very strong. Any directive to "do" is incomplete without a "why do" explanation. And "just because" makes no more sense among adult

crew members than among the innocent questioning faces of our too-young-to-know-better children.

"Why" is at the root of one of the most significant principles of human resource management; every job must have an objective (goal) and that objective must be communicated to the person doing the job. The most basic, most menial task in golf course maintenance must have an objective, a reason for existing, and the objective of that most menial task must contribute in some real way to a larger objective, which in turn plays a part in a yet larger objective which in turn ultimately explains why the course exists, why people play it and, to bring the role of "why" of objectives and goals - home to a personal level, why there is such a thing as a golf course superintendent. That role exists only because of a pyramic of increasingly important tasks and objectives that need directing and controlling within an organization of things and people. Without objectives, tasks are meaningless and the human spirit reacts badly to meaningless tasks, the superintendents included.

How To? Communication, Mr. Superintendent; you demand it of your superiors, you must provide it to your subordinates. First, this is what you will do; second, this is how you will do it; third, this is why it must be done, in terms of today's short-range goals, next month's mid-range goals and next year's long range goals. If it's important for you to get the job done, then it must be important enough to satisfy the doer's need to know why. Knowing why may even result in discovered means of doing it better.

A fifteen minute session twice a week for open discussion about what, how and why should open the door to understanding. Occasional informal one-on-one reinforcement of what-how-why information should lead to even better communication-based acceptance of whats-going-on-and-why-am-I-part-of-it unasked questions.

We start with recognition of the team, being aware of the human member's need to know objectives (whys) and responding to that need, and move then naturally to the development of feelings of identification, of loyalty, of having contributed in a meaningful way, of satisfaction in accomplishment, of a true, class A membership in the team.

Partition plantings

The 'walls' of the course

A golf course without partition plantings would be much like a house with no inner walls.

If we were to define partition plantings, we might say it consists of those plants which separate one playing area from another on the golf course. They do the same thing on the golf course that the inner walls do in our homes. They create an atmosphere of separateness or privacy as you move from one hole to another.

The total function of the partition plantings is very important if you want to consider your course not only a true test of golf, but an area of beauty.

How do they affect play?

First of all, they definitely play an important part in the safety of the game. They keep balls from flying from one playing area into another. Most of us cut our teeth on some nine or eighteen hole course where there were very few trees on the entire layout. How easy it is to remember the flying objects, in this case identified, going from one fairway onto another. I can recall that my first feeling about the game of golf was that it was a very dangerous pastime.

Often the probability of a hooked or sliced ball from a nearby tee will very much determine the density of the planting and the height of the planting in these partition plantings.

Secondly, trees in partition plants along major impact areas, both for the high handicapper and the low handicapper can really affect the difficulty of playing each hole, by opening up or tightening up the hole as might be required to improve the play of the hole.

What will the wind do?

Partitions also play an important part when it comes to the wind factor in relation to the game itself.

Some partition plantings act as funnels for wind depending on the orientation of the fairway in relation to the prevailing winds in that part of the world while others act as wind breaks.

Along those fairways which must go with the path of the prevailing winds, the partition plantings would ideally be a more open nature with more breaks in the trees, than a partition which would serve to buffer the wind and, thus, be more dense with fewer breaks.

Awareness of aesthetics

As for the aesthetics of the partition plantings, they certainly create a special relationship between the course and the golfer himself. For those golfers who are not out there trying to break par every day or for those who are not professionals, the total golf course really should be a place of recreation for the mind and soul. This is especially so for people who work and live in the city or even in condominiums or townhouses and then go out to the golf course to get their batteries recharged so to speak.

It's the composition of these partition plantings along with the border plantings which we spoke of in the previous article that really makes or breaks a course as far as natural beauty is concerned.

The differences between the sparse golf courses in Scotland and the British Isles plus a few of them in this country, and those courses in our lush eastern and gulf states stand out like the difference between black and white. We realize that we have to put up with our winter season but if you were a member of a judging team judging golf courses for their natural

beauty, it is a foregone conclusion that the course with a goodly amount of trees on it would have a better chance of gaining the higher scores from the judges.

Design of the partitions

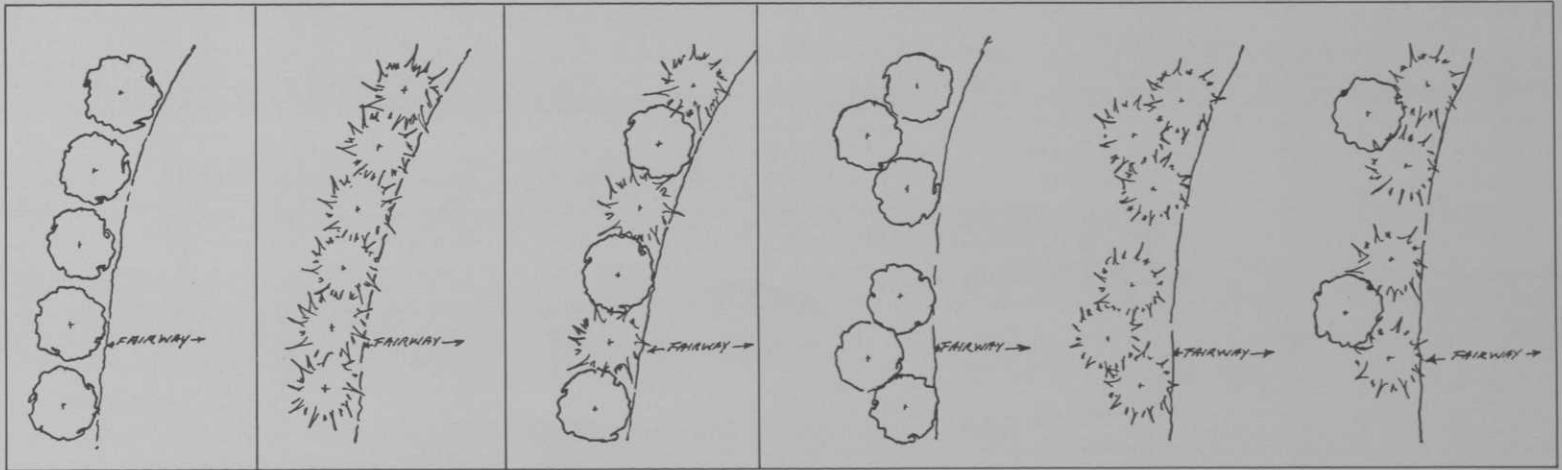
Naturally many courses in states where there are trees to start with are hacked out of forest areas. Other courses are started on open acreage and then landscaped with trees.

Some of the courses that are constructed in a wooded area have a feeling of age to them by the time play is started while others have been seriously impaired by the lack of knowledge or vision by those who made the decisions as to which trees to discard and which of those to keep. Therefore we will have to discuss both kinds or origins in this article to help you realize the full potential of the beauty to be had through the proper design of these partition plantings.

If we started with a bald 150 acres with all the fairways and greens and tees in place, we would have to make a decision as to which way we were going to go on the long range appearance of this course. We would

This wide partition (top) allows a view through to other parts of the course as well as a carpet of wildflowers. Partitions on both sides (bottom) give a sense of privacy.





Avoid using all deciduous trees in single line. It's too thin — unsafe.

Avoid using all evergreen trees in single line. Unnatural.

Avoid using alternate evergreen and deciduous trees. Unnatural.

Avoid unnatural grouping in equal triangles.

have to ask ourselves, are we going to try to make it look like it was chopped out of an existing wooded area or are we going to use every piece of knowledge and skill that we have learned and use both native and introduced trees to create these partitions so that in 20 or more years out ahead they will create a thing of true beauty.

Undoubtedly, the "mix" is the most logical answer. In other words, we could landscape a course with all native plants but then we would have to forego using some very attractive introduced trees. Also, if we were strictly staying with nature in some particular areas, every tree on the course would then be a cone-bearing or coniferous tree, such as the pines, spruces and hemlocks. Or in other areas they would all be deciduous trees such as maples, oaks and ash. Again, the mix seems to be the best solution.

We must be very careful, however, not to bring onto this scene of natural beauty trees that would stand out as sore thumbs even to the untrained eye. This is why you will have to do a lot of homework if you are going to tackle such a design problem yourselves.

First we must remember that each partition planting will have two sides to it as far as the observer or the golfer is concerned. This is the same as the interior walls of your home. Therefore, we must take into consideration the angle of the sun, the direction of the prevailing winds as well as the ultimate width of the partition planting when the trees are on their way to maturity or into maturity.

One of the most difficult things to avoid when hacking a golf course out of a solid wooded area is the straight wall-like effect of both the border

plantings and the partition plantings which are allowed to remain after the bulldozer has finished its work. This is another one of the three or four cardinal sins that we see as we travel from course to course.

The objective of the designer is to break up these straight lines in both cases. Whether you are starting from scratch or whether you are starting from a heavily wooded area to begin with, a curved edge partition is more natural, thus more desirable.

This is accomplished by having the courage to remove some trees that look almost too beautiful to be discarded. By doing this we can work in gentle curves facing the golfer as well as concealing curves ahead from the golfer, which adds interest to the hole as the player moves along.

As well as curving the partition edge naturally, complete breaks should be created in these plantings where the golfer's view can move uninhibited across to the adjoining hole, or several holes, thus, adding depth and perspective to the natural beauty of the course.

Also interest is created by adding promontories of particular trees or groups of trees sticking out so as to force a narrowing of the space in which the ball can fly. This would be all planned on paper if you were starting from a nude piece of land. Looking at the landscape plan on a drawing board, which is like looking with a birdseye view, it is relatively easy to avoid the straight wall-like partitions. It is a little more difficult to create them out of a solid wooded area. Again we are aware that every time you take an additional tree out it is adding to the cost of the initial construction. Probably this is the reason we see so many non-interesting or dull partition plantings.

Landscape designers and architects refer to certain types of plants as "accent plants". These are used to either break a monotonous silhouette created primarily from the trees left standing that are all the same height, or on barren areas where new plants must be added. These accent plants are used to add interest to the man-made composition. A good example of an accent plant would be the tall narrow form that we refer to as either fastigate or pyramidal or columnar.

Just having a group of tall trees with clean boles (trunks with no branches coming out) would look pretty much like a series of fence posts with very little interest. Therefore, to add interest we add what are known as "understory" trees. These are smaller growing trees and sometime large shrubs that have the natural ability to compete with larger trees without spoiling their general appearance and habit. Where dogwoods grow, this would be the prime example of an understory tree. If you are familiar with the *Viburnum prunifolium* (Blackhaw), that small tree/shrub would be the ideal example of a plant which would do well as an understory specimen.

Interest and composition can be added by selecting those trees that have a conspicuous bloom on them at certain times of the year. Here again you must know (1) what the color of the flowers would be, (2) what time of year will they be in bloom, and (3) do you use them as single specimens or do you mass them to get the best effect.

In addition to flowers, we can work interest into the partition plantings through the use of conspicuous colored bark on the trees. In this manner they can be of interest twelve months of the year. The classic example here, of course, would be the



A young pair of partition plantings (top) does not block the dramatic views to distant points off the course. Courses on windswept areas (right) have to do with a minimum of trees. Native plants are called for.



birches with their very bright gray or pure white bark.

It may seem strange but the knowledge beforehand of fall color of the foliage and deciduous plants is even more important than the flowers on a tree. (1) They usually last longer and, (2) they are more brilliant and spectacular because every leaf on the tree is in a state of unbelievable beauty.

Also, you must take into consideration the golfer, if he should hit a

You must ask yourself—does this tree naturally prune itself by dropping little twigs and branches throughout the growing season? A constant maintenance problem would be created by having to pick them up. Anyone who has ever lived in an area where ice storms are a thing to live with knows that certain types of trees on your course can withstand these ice storms, while others are literally ripped to shreds. This must be known again in making your selections. Some trees can stand the high winds of a hurricane season, while others don't have a chance. The problem of pruning these trees over the long run becomes tremendously important. In the areas of the country where the Pin Oak grows, anyone who has to live with them over a long period of years will come to his own conclusion (he will not have to hear some professor tell him this) that this is one of the high maintenance trees even though it is a very valuable tree on a golf course. If you have never climbed into a Pin Oak tree and cut out some branches and then tried to get them down to the ground, then you really haven't experienced frustration.

ball under or near one of these smaller growing trees. Some multitrunked species, and those which have branches to the ground constitute an unfair hazard for the player.

Minimum maintenance is desirable.

When new trees are decided upon for these partition plantings, the designer, whoever he may be, must have a vision of the minimum twenty years down the road. These trees will be here perhaps as long as the golf course remains. Therefore, maintenance of these trees should be one of the most important factors in his decisions when he makes his selections of trees.

Such items to be considered include the type of foliage in relation to damage to the turf when they drop to the ground in the fall. The larger or the flatter they are, the more danger they can be to your grass. If you can't get out there and rake them up almost on a daily basis, especially if you get caught in a wet spell, the more possible damage will occur to your fine turf.

You must know what kind of seeds or fruit these trees will set in relation to your greens, tees, fairways and the roughs. You must also know what this fruit lying on the ground would do to the game of golf since there are certain rules that the golfer must follow in relation to impediments around his ball.

Disease can be deadly.

Not enough can be said on the importance of the ability of trees that you select to withstand the onslaughts of diseases and insects. This can be the undoing of many trees as it was in the process of doing in the 70's on the East coast with the Austrian pine, (*Pinus nigra*). Not only golf courses, but our home grounds, our parks, our highway plantings, are suffering severely from the effects of the airborne disease Diplodia. The question here would be, do you want to plant such a tree that will die in the next generation, or do you cross them off your list and use other conifers that are able to continue their normal life span. Not only is knowledge and timely application of preventive treatments necessary, but wise tree selection is also helpful. In addition, the approach of keeping diversity of species in the partition plantings is a good one to follow. Then, even if a disease should hit specific trees, it will not be able to wipe out an entire planting, as has happened in the past.

Perhaps in summation, we might again go back to the comparison of the inner walls of your house to the partition planting on your golf course and ask you to imagine every wall in your house to be completely blank. This would mean no pictures, no draperies, no shelves, nothing.





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