

wet and shady areas. It was a shallow rooted grass and really nothing more than a glorified poa annua.

**AERIFICATION AND TOPDRESSING:** The mechanical aerifier didn't make its appearance on the scene until late 1940's. Prior to that time we used garden forks or pitch forks to open the soil on local hard spots and green collars. A very tedious and time consuming effort. When the power aerifier did make their appearances, many were crudely built and very slow and only stayed on the market a short time.

We had no power topdressing machine then like we do now, so all topdressing was done by hand with scoop shovels. This was an art, mastered by only a few employees with consistency. Greens were topdressed on an average of every 4 to 5 weeks during the playing season. Using steel mats, backs of wooden racks or a 3 foot stiff bristle brush were used to work the topdressing into the turf. It's a lot easier today.

These are then some of the things that were done on golf courses in years past. So, the question asked me by my junior colleague friend, "Were the golf courses better in the "good old days?" All I can say in a nice way is, "Bull Feces". Today for one, we are working together, sharing ideas, plans, experiments, results good or bad, not only with ourselves but we have the help from universities and manufacturers. Years ago nothing was shared, and if you asked a question you were given the opposite answer. The self implied adage was, "Find out for yourself, I had to".

The golf courses are show places today compared to yesteryear. The golfers have never played on better golf courses than they are playing on today. The golfer or person who says the courses were in better condition years ago, is only thinking of it costwise. Yes, they did play for a lot less in the "good

old days", on golf courses that also offered a lot less than they do today. We have the best today, believe me, I've been around a long time.

## VANDALISM

By Patrick Klein  
Hillcrest C.C.

With summer fast approaching, the weather beginning to warm and schools letting out, numerous incidents of vandalism will once again be with us and we will all be trying to come up with ideas to control it. At Hillcrest Country Club which is a tract course built through a housing development that does not permit fencing, we are very open and susceptible to vandalism.

Last year as things began to get out of control, our Greens Committee decided something would have to be done — but what? After much thought and many ideas (most of which were either cost prohibitive, against local ordinances, or totally unfeasible), we thought we would try something different. We decided to host an open house cocktail party for everybody living around the course.

Invitations were made and hand delivered wherever possible. That night after everyone arrived, we started an informal discussion on the problems we were having and then turned it over to the people, letting them inform us of problems that they might be having — whether it was complaints against the Club or whatever. We tried to resolve any complaints that were brought up. At the close of the evening we asked one thing in return — if they saw anything happening that was out of order they should let us know. After that night vandalism was down to almost nothing and if anything did happen I was informed immediately.

(cont'd. pg.12)

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After the great success we had last year, we soon will be scheduling another open house for all our good friends and neighbors just to say thank you for all their help.

## ON THE GOLF COURSE SUPER-INTENDENT

"The golf course superintendent is more of an artist than he realizes. I think he's tremendously important in providing the 'golf garden view' to the members as an escape from the concrete and steel that overpower us in today's world.

"He's got to do this with a budget that is often too small, with challenges that were never there before — like water shortages and environmentalists — and the guy who pulls it off has gotta be a genius.

"I think we owe him a lot more praise than he's used to getting and I know it's going to happen. I can think back to when my own profession didn't get the appreciation it deserved. The reporter was supposed to be a rather devil-may-care underpaid guy and not generally given profound respect, if any at all. But times are changing. When you heap responsibilities on people you've got to give them respect, you've got to give them bucks and you've got to give them privileges.

"The television guys still haven't learned to point out the beauty of a golf course or the work that went into it, months and months. People accept the beautiful greens and fairways instinctively. I don't say the superintendent has to be interviewed at length but they can mention his name and let him share a split-billing with God!"

Herb Graffis

## INTEGRADED DISEASE CONTROL

Grass diseases are managed by a series of cultural practices, by growing blends and mixtures of disease-resistant grass cultivars and species, and by timely applications of fungicides and nematicides. Integrated disease control involves the use of all these management tools aimed at (1) making the grass plants more resistant or immune to infection (2) making the air and soil environment less favorable for the pathogen(s) and more favorable for the growth of the grass plants, and (3) killing or preventing the pathogen(s) from reaching the grass plant and producing disease.

The specific cultural practices that keep disease losses to a minimum, and the diseases each helps to control, vary somewhat on whether northern or southern grasses are grown, rainfall and temperature distribution patterns, and the region of the country.

The ideal method of controlling plant diseases is to grow resistant cultivars (varieties) and species. Unfortunately, there are no turfgrasses resistant to all major diseases. Grass cultivars considered highly resistant in certain regions, where specific diseases have not been observed, may prove to be susceptible when grown in another area because of temperature and moisture conditions that are more favorable for disease development or the presence of genetically different strains (or physiologic races) of the pathogens. Races of disease-causing fungi differ greatly in the turfgrass species and cultivars they attack, the virulence of the pathogen, and the temperature range at which infection and disease establishment occur. For example, when Merion Kentucky Bluegrass was first generally available about 1950, it was believed highly resistant or immune to all diseases. Now, after being widely grown throughout much of the northern half of the United States it is moderately to highly susceptible to Fusarium blight, powdery mildew, leaf and stem rust, Sclerotinia dollar spot, and leaf smuts. It is no longer considered a highly desirable cultivar.

Perhaps the best insurance against turfgrass disease is to plant combinations (blends) of compatible cultivars. This should provide a broad base of genetic resistance and a better adaptation to local conditions. There are a number of improved Kentucky bluegrass and perennial ryegrass cultivars that are reported to have moderate to excellent resistance to one or more diseases, are widely adapted, and suggested for growing over much of the United States.

The performance of a blend or mixture will depend to a large extent on the intensity of the turf culture. For example, low nitrogen rates, especially on closely clipped turf, increases the susceptibility to Sclerotinia dollar spot. High nitrogen rates and close mowing, especially during the spring, favor the development of Fusarium blight and Helminthosporium disease on susceptible cultivars. A sound understanding of these inter-relationships is essential in making recommendations and decisions about cultivars and management for any turfgrass area.

Malcolm Shurtleff, U. of I.

## BROCHURE AVAILABLE ON GOLF MASTER PLANNING

A brochure on master planning a golf course, which contains information for those planning a new course or remodeling an older one, may be obtained by writing the American Society of Golf Course Architects, 221 N. LaSalle St., Chicago, IL 60601.



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-----

Congratulations to Tim Kelly, Supt. at Village Links Golf Club of Glen Ellyn for being elected president of the Chicagoland G.C.S.A. for the coming year.

-----

Amos Lapp celebrated his 80th birthday on April 1st. Over sixty friends and relatives helped him eat the birthday cake at his home. The MAGCS would like to congratulate Amos on this bench mark.



*Amos & Esther Lapp pictured on Amos's 80th Birthday*

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1996 Los Angeles	Anaheim	San Diego
1997 San Diego	Las Vegas	Anaheim
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1999 Phoenix	San Francisco	Anaheim
2000 San Francisco	Los Angeles	Anaheim

## A GREENSKEEPERS MESSAGE

By Dennis Wilson, Supt.  
Sunset Ridge Country Club

After reading April's "President's Message" I decided it was time for me to jot down a few thoughts of my own.

Being of Dutch, Irish, English and Italian ancestry I will never understand how a suit and tie makes me a professional. I do agree we should all wear suit and tie to our meetings out of respect to our host superintendent and his Club.

Now, before I go off half-cocked about this subject, I would like to quote my uncle, Domenic Grotti, when he said to me "you don't have to act like the Boss, **just be the Boss**". I think this also applies here in that we don't have to try to act like professionals, just be professional and the rest will come.

-----

Art Benson, Sr. had a triple by-pass heart operation about the middle of March. He is up and walking about 2 miles every day now and the doctor promises him he will soon be able to play golf. That is great news to his many friends here in Illinois. Drop Art a note to Traylor Village #3 Palm Dr. Winter Garden, FL 32787.

-----

Albie Staudt was given a birthday present by his club, a trip to the "Masters"! Maybe we all should mention our birthdays to our clubs.

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## GEOTEXTILES

By David C. Louttit &  
Jim Walsh

The geotextile industry has recently expanded the application of geotextile fabrics to include golf course construction and maintenance areas. One geotextile manufacturer, Hoescht Fibers Industries of Spartansburg, South Carolina, has developed a nonwoven, needlepunched polyester fabric and has tailored it specifically for use on golf courses. Warren's Turf is the local and national distributor for the product, Terra Bond (formerly Tervira Spunbond). Jim Walsh is the local sales rep.

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A number of clubs in the Chicagoland area have used Warren's TerraBond, and one superintendent who has found it most useful is David Louttit at Oak Hills Country Club, Palos Heights, Illinois.

Oak Hills, an 18-hole public for many years, was redesigned in the mid-70's to a 9-hole Country Club which encircles a plush condominium community. The new course has large hazards on six of the nine holes. The hazards also act as reservoirs for the storm sewer system from the condominiums. However, during periods of heavy rain, the ponds flood their banks, and as flood waters receded, we have experienced tremendous erosion problems with the bank area.

The heavy December rains of 1982 caused the already badly deteriorated banks of the pond on the 9th hole to collapse and it was decided that in the spring of 1983, the pond was to be reconstructed. At this time, we got in contact with Jim Walsh, who provided us with valuable information concerning the use of TerraBond for erosion control and pond construction.

In March, 1983, construction began on the newly-designed pond. The procedure we used follows:

1. Dimensions of new pond staked off.
2. Digging of pond to desired size and contour. The surface area was increased from 3,200 square feet to 8,000 square feet.
3. The slope of the banks were kept as close to 3:1 as possible.
4. Three feet above the desired water line, a trench was cut around the entire pond. The trench, eight inches in width and twenty inches in depth would be used to help hold the new liner in place.

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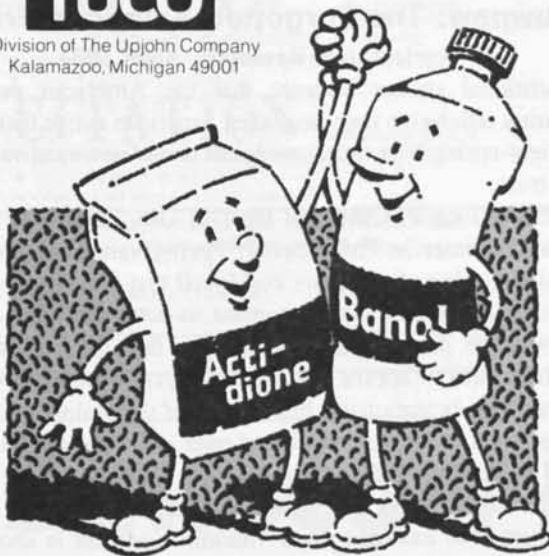
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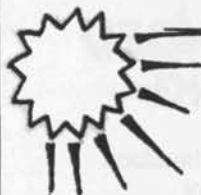
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(Geotextiles) cont'd.

5. Warren's TerraBond 1120 was used to line the entire bank of the pond, from the bottom, to the trench. The TerraBond (which comes delivered on a roll 12.5 feet by 300 feet), was positioned near the trench and held in position by two men. Two other men then pulled the TerraBond down the bank until they reached the bottom. It was similar to pulling down a window shade in your kitchen. The liner was then cut from the remaining roll near the trench, allowing enough slack so the TerraBond could be tucked into the trench.
6. As the sheets of TerraBond were put into position around the bank, they were overlapped six inches to eight inches and held in place with steel hooks. The "U" shaped hooks were made of one-eighth inch steel and had sharpened tips so they could be easily pushed through the liner and into place. As we moved along, the extra liner we had left ourselves was folded into the trench. The trench was then backfilled with soil, which was carefully tapped into place.
7. After all the TerraBond had been secured and the trench had been backfilled, the banks of the pond were lined with rip-rap from the pond bottom to the desired water line.
8. Area around pond was sodded.

Since construction was completed, we have had several more floods, and our new pond has performed beautifully. Erosion control has been 100% effective, and a once troublesome pond, is now a beautiful water hazard.

**Pawpaw: The Forgotten American Fruit**

—Agricultural Research, April 1983

Nutritional studies indicate that the American pawpaw (*Asimina triloba*), a long-neglected American native that bears excellent-tasting fruit, may emerge as one of our most valuable fruit trees.

Chemist John P. Cherry of the U.S.D.A Eastern Regional Research Center in Philadelphia, Pennsylvania analyzed the nutritional value of pawpaws and found that their fruit, which is unusually low in moisture content, is actually higher in unsaturated fats, proteins and carbohydrates than three other more common fruits — apples, peaches and grapes. In addition, the pawpaw has exceptionally high levels of the amino acids that are essential to the human diet — over six times the amounts found in the three other fruits tested.

According to Cherry, pawpaws also have high vitamin A and C content. For example, their vitamin A content is about the same as in apples and grapes, and although pawpaws have less vitamin C than do citrus fruits, they have more than twice the amount found in apples, peaches or grapes. Finally, pawpaws are higher in potassium, phosphorus, magnesium, sulfur and iron than the three other fruits tested.

Despite its sweet, pearlike fruit, which has the texture of a banana and a fragrant aroma, pawpaws have not been cultivated widely; they are only found growing in a few home gardens. Pawpaws are shade tolerant, have attractive foliage, and are relatively disease and insect free. Unfortunately, little has been done to improve the species through breeding and selection.

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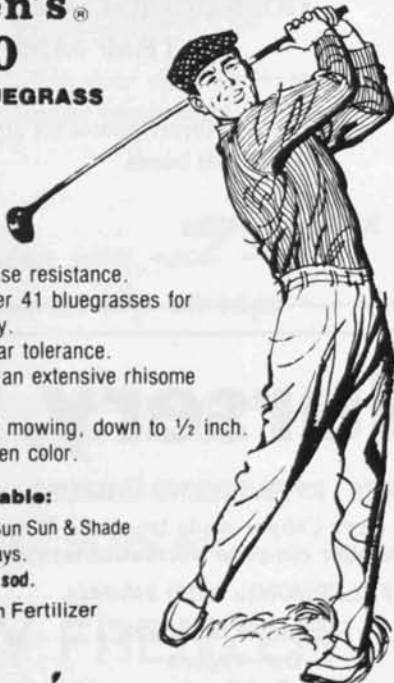
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## Some Reasons Fruit Trees May Not Bear

by James A. Fizzell, Sr. Ext. Adviser  
Horticulture

As we move into a new season we are already anticipating the harvest of next fall. This is particularly true for those of us who grow fruit trees.

Now is the time to think about reasons trees may not bear, and to plan so your trees have every chance to bear.

Fruit trees will bear a crop when the plants are healthy enough to produce a reserve of stored carbohydrates, in addition to what is needed for growth.

Young vigorous trees may use up their foodstuffs just producing leaves. Plants damaged by insects or diseases may use vital carbohydrates making new leaves.

Unless over stimulated with nitrogen fertilizer, new trees should start bearing a couple of years after planting. Dwarfs begin 2-3 years before standard sized trees. Apples should begin in 3-5 years; sour cherry, 4-6 years; peach, 2-4 years; pear, 3-6 years; and plums in 3-5 years.

Weather conditions can affect trees even though bearing has begun. Extremely cold weather in winter, or spring frost, may kill fruit buds. Peaches are the most sensitive to cold; the buds may be killed by temperatures at 10° below zero. As the fruit buds open, heavy frost will kill many fruit buds. If the buds have started to open but not blossomed yet, the buds can tolerate temperatures of 25° or above. Once open, blossoms of most fruit trees will die if temperatures drop below 28°.

An abundance of blossoms does not necessarily mean there will be a lot of fruit. The flowers still have to be pollinated.

Some tree-fruit varieties are self-fruitful. Such varieties set fruit when pollinated by their own flowers, or by pollen from another tree of the same variety. Most peach and sour cherry varieties are self-pollinating.

Non-self-fruiting varieties need pollination from a tree of a different variety. Even then, some varieties will not cross pollenate.

Apples recommended for Northern Illinois include Red and Golden Delicious, Jonathan, McIntosh, Empire and new scab resistant varieties Prima and Priscilla. Plant any two to insure pollination.

Seckel and Moonglow and Starking Delicious pears cross pollenate.

Protecting the fruit from insects and diseases in Northern Illinois means setting up a season-long spray schedule. You can write to the University of Illinois, 4200 West Euclid Avenue, Rolling Meadows, IL 60008 and request a home garden fruit spray schedule. Send a self-addressed, stamped envelope and ask for the 1984 Tree Fruit Spray schedule.

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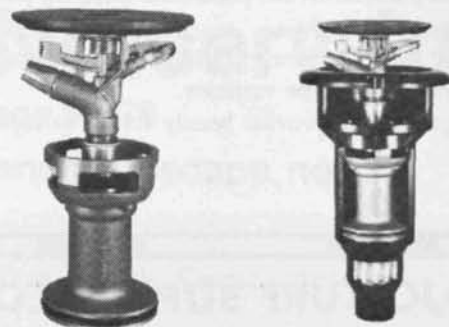
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## HAVE A CUTTING GARDEN

By James A. Fizzell  
Sr. Ext. Adviser, Horticulture

A cutting garden will provide flowers all summer for use inside the home as well as for display in the garden. Creating a cutting garden of your own is relatively simple.

To create a cutting garden just follow a few steps.

Select a site with full sun to partial shade. A site along a fence is ideal. Cutting gardens need not be large, a site a few feet in length will do fine. Cutting gardens can also be successfully grown in containers (pots and tubs).

Soil should be well drained. Adding peat moss, leaf mold or composted animal manure to the soil will help increase the organic matter content as well as improving the drainage.

Plant selection is important. Annuals tend to do best in cutting gardens. Sow seed indoors in early spring, or outdoors in May. Started plants should be set out in late May.

Any of these plants will work well in a cutting garden: Aster, Baby's breath, Bachelor's button, Bells of Ireland, Calendula, Chrysanthemum, Cosmos, Dahlia, Marquerte daisy, Marigold, Nicotiana, Pansy, Petunia, Snapdragon, Salvia blue or red, Scabiosa, Stock, Strawflowers, Verbena, Zinnia, Artemisia (silver mound), Dusty miller, and Ferns.

Cut flowers in mid-evening or early morning so they aren't wilted from the day's heat. Keep a container of warm water handy and plunge the stems immediately after being cut. If the flowers won't be arranged within a few hours after cutting, remove the lower leaves from the stems and return flowers to the container of water. Floral preservative definitely prolongs the life of cut flowers. Store the flowers in a cool dim place away from a draft.

The garden will need a regular feeding, watering and spraying program for best results. To encourage flowering use a fertilizer high in phosphorus and potassium. Keep the plants staked and provide access paths.

For a good supply of flowers throughout the summer try successive plantings of some varieties.

Cutting gardens do provide beauty for all to enjoy.

## Well Disinfection Requirements

C. E. (Scotty) Stewart

Where small diameter wells with hand pumps for drinking water purposes are constructed, repaired or reconditioned the golf course superintendent should insist that each installation be disinfected prior to going into service. A concentrated solution of chlorine and water is often used for this purpose; common laundry bleach which is sold at most grocery stores and which contains 5¼% chlorine is ideal for the disinfection of wells when used in the following amounts.

Diameter of well casing	Depth of well	Cups of bleach	Total water solution
2''	50 ft.	¾	8 gals.
3''	50 ft.	1¾	18 gals.
4''	50 ft.	3	32 gals.
5''	50 ft.	4¾	51 gals.

The cups of bleach and water should be mixed in the above amounts and poured into the well casing and kept there for a minimum of two hours after which it should be pumped to waste, this usually takes a minimum of 20 minutes of pumping. A sample should then be collected for bacteriological analysis, bottles are available from all local health departments for this purpose.

## “MAY”

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That hasn't been said before?

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