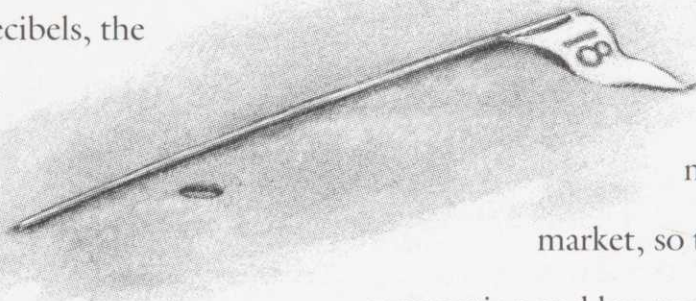


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Scott Turtinen, Executive Director  
Minnesota Golf Course  
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240 Minnetonka Avenue South/P.O. Box 617  
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## FROM YOUR PRESIDENT'S DESK

### Taking Advantage Of Educational Seminars



To Dave Sime, a very special thank you for getting your course ready so early. I was very pleased with the *great* turn-out of 61 members. . . and yes, many from the Metro area. I am very proud that this association thinks so much of its out-state superintendents. That's real respect!

\* \* \* \*

I have not received any letters to the "President's Mailbag" at this writing, but I'm looking forward to it.

\* \* \* \*

**Just a bit of information about the Minnesota Turf & Grounds Foundation:** This summer's annual Turf Expo will be the first organized event, so please give some thought to attending. It will be held at Resurrection Cemetery on August 3rd and 4th in Mendota Heights.

The MT&GF's second event is really exciting. The MGCSA's 67th Annual Conference will host the first annual for the MT&GF. Many people will be coming together with the same thing in mind: education/re-certification; a trade show, possibly double in size, and lots of camaraderie.

The MT&GF has the full support of the MGCSA Board of Directors, and I also hope the support of all MGCSA members. Let's prove it in December at the Minneapolis Convention Center.

\* \* \* \*

**One final note:** I hope to see you on May 8th at LeSueur.

—Joe Moris  
MGCSA President



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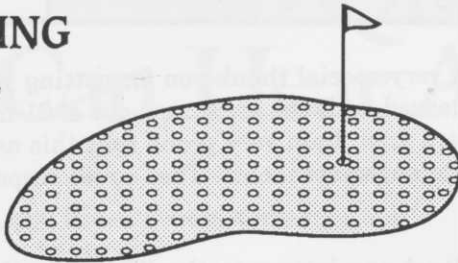
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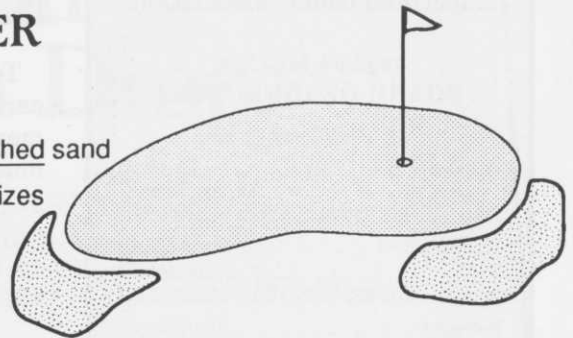
## TOPDRESSING MATERIAL

- 80/20, 70/30, or mix to order
  - Sand screened with 1mm screen (USGA spec)
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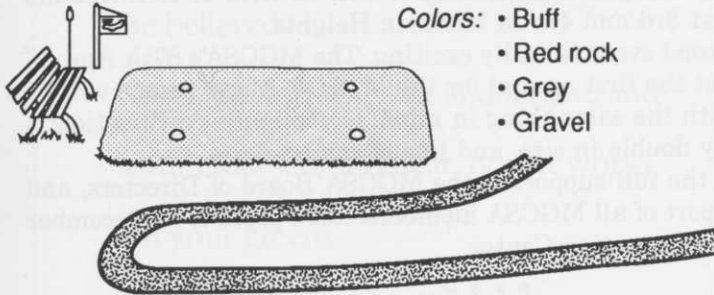
## BUNKER SAND

- Clean, washed sand
- 2 particle sizes to choose from



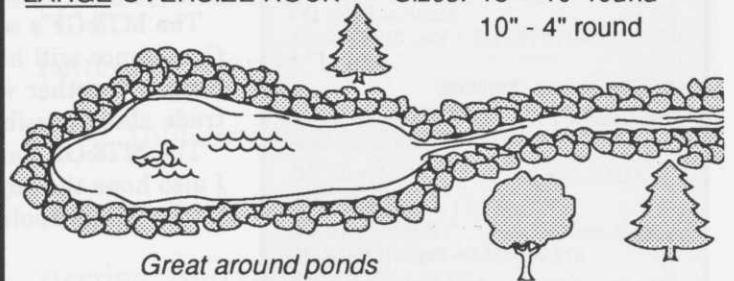
## CARTPATH AGGREGATE

- Colors:
- Buff
  - Red rock
  - Grey
  - Gravel



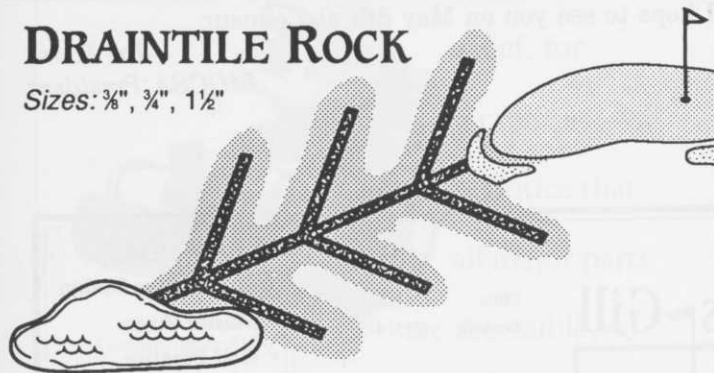
## RIP RAP

- LARGE OVERSIZE ROCK      Sizes: 18" - 10" round  
10" - 4" round



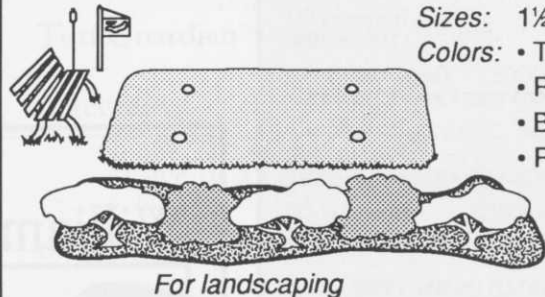
## DRAINTILE ROCK

Sizes: 3/8", 1/2", 1 1/2"

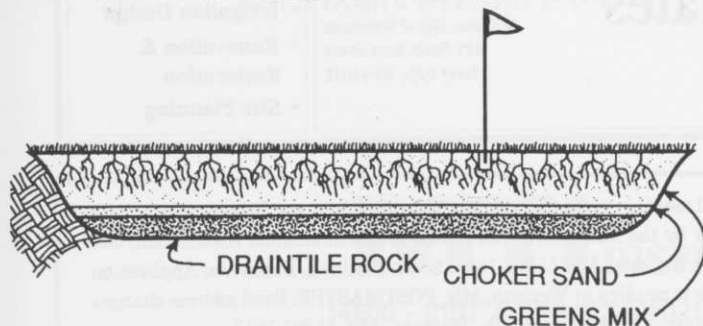


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# U of M Update

By  
Bradley Pedersen  
University of Minnesota



During February and March at the Earle Brown Center, the Minnesota Department of Agriculture (MDA) in conjunction with the University of Minnesota, completed another round of four pesticide applicator training days for commercial and non-commercial turf and ornamental applicators. While there were a few superintendents present, the majority of you will receive 1995 certification next December at the annual conference.

This year's PAT planning committee was very pleased with the response to the activities which stressed concurrent and break-out sessions throughout the day. In the morning the group was divided for the MDA presentation, and other major speakers. After the morning break, speakers switched rooms and repeated their presentation to complete the cycle. Smaller audiences improved both attentiveness and participation.

During the workshop portion of the day attendees could choose one of four workshops the first hour, and then a second workshop, since the same four workshops were repeated during the second hour. By doing this everyone got two of the four. All attendees then assembled in the same room for the keynote speaker.

Based on attendees' comments from the previous year, I was asked to develop a workshop on lawn and weed grass identification. My first thought was that the topic would be too basic for this group, all of whom were already directly involved in turf management. It was interesting to note, however, that out of eight workshops and 480 applicators that chose that workshop, only a few indicated they felt confident in their identification abilities. It was a *good reminder* that all of us can use a review of the basic nuts and bolts information.

One of the handouts for the day was an abbreviated identification key (partially adapted with the permission of Scotts) from the Proturf Guide to the Identification of Grasses. I am enclosing it as one of those *good reminders* for you to use and share with the crew.

## [ Short Cuts to Grass Identification ]

### I. Leaves folded in the bud

#### A. Ligule membranous

##### 1. Ligule prominent or large

###### a. Orchardgrass

Sheaths very flattened, blades over ¼" and long, lax, ligule very tall.

###### b. Annual bluegrass

Apple-green color, medium ligule, forming patches and whitish seedheads in low-cut turf.

###### c. Roughstalk bluegrass

A light yellow-green plant, ligule pointed, blades sticky and tapering to a "boat-shaped" tip, sheaths rough, spreading by stolons.

##### 2. Ligule not prominent

###### a. Goosegrass

Ligule with jagged edges, divided in the center, long hairs at the collar edges.

###### b. Kentucky bluegrass

A dark green plant, spreading by rhizomes, forming good turf, blades with parallel sides and a "boat-shaped" tip.

###### c. Fine fescue

Sheath wider than the blade, blade less than ⅛" wide, short ligule, creeping by short rhizomes or bunch type, forming a fine-bladed turf.

###### d. Perennial ryegrass

Shiny, tough, dark green blades with pointed tips, used as a durable turf.

### B. Ligule hairy

#### 1. Sandbur

Sheaths flattened, yellow-green color, forming patches with sharp burrs.

### C. Ligule absent

#### 1. Barnyardgrass

Sheaths flattened, broad, purplish, growing prostrate in turf, seedhead rather coarse.

## II. Leaves rolled in the bud

### A. Membranous ligule

#### 1. Large (Hairy) crabgrass

Ligule tall, rounded, jagged edges, long hairs at the collar edges and near the ligule, bunch type grass.

#### 2. Timothy

Ligule medium tall, toothed at the corners and center, base of the plant swollen, bulb-like, bunch type grass.

#### 3. Annual ryegrass

Fast growing, yellow-green plant often used as a temporary turf or nurse crop, slender, clasping, claw-like auricles, bunch type grass.

#### 4. Creeping bentgrass

Rooting at the lower nodes and creeping in the lawn by long stolons to form a dense turf. Used for putting greens.

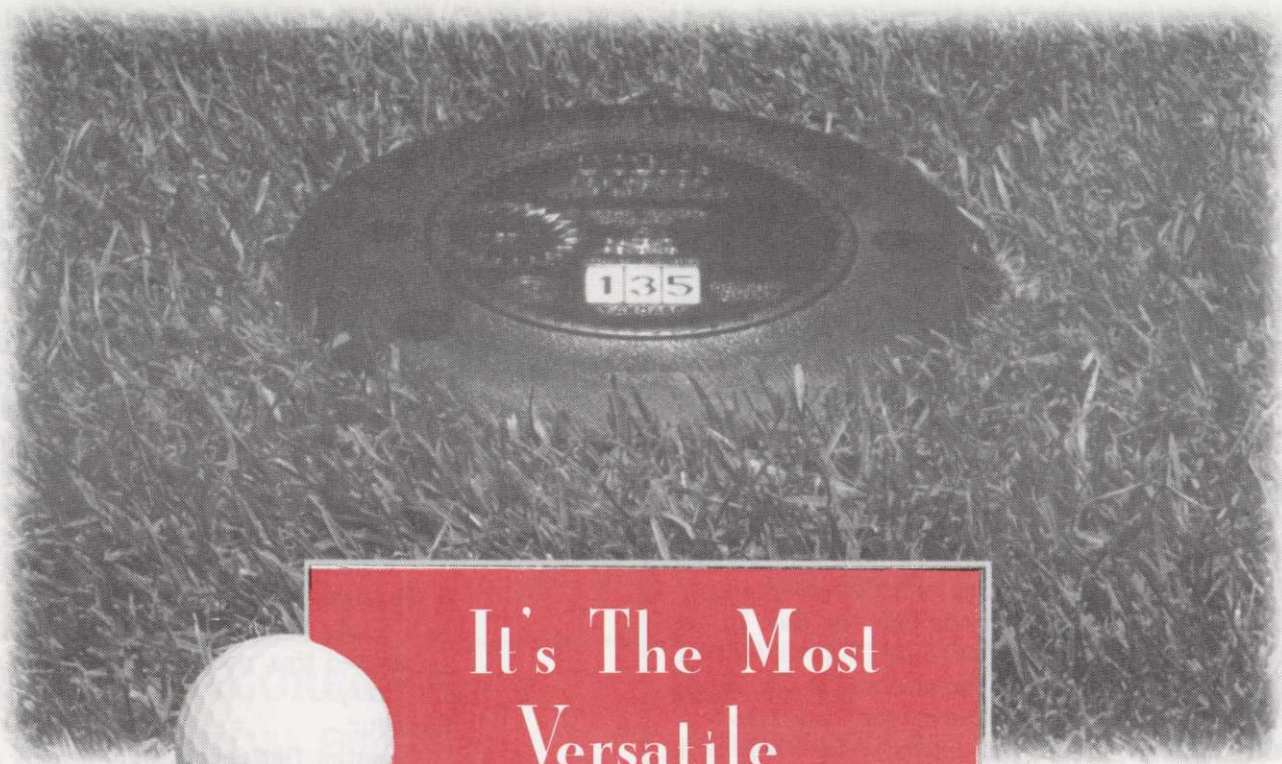
#### 5. Quackgrass

Slender, claw-like auricles clasping the stems. ¼" blue-green blades, creeping by strong, thick rhizomes.

#### 6. Reed canarygrass

Ligule rounded, very large, jagged across the top, blades flat, ½" wide, tapered, spreads by vigorous rhizomes.

(Continued on Page 37)



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# A Mini-Conversation With John Harris, National Amateur Champ

*(Ed. Note: Following are some responses to questions asked of insurance executive John Harris, 1993 National Amateur Champion, consistently the Minnesota Golf Association's "Player of the Year" and a competitor in the 1994 Masters, where he was the only amateur to make the cut and finished the 72 holes with a score of 305. He is a member of Edina Country Club.)*

\* \* \* \*

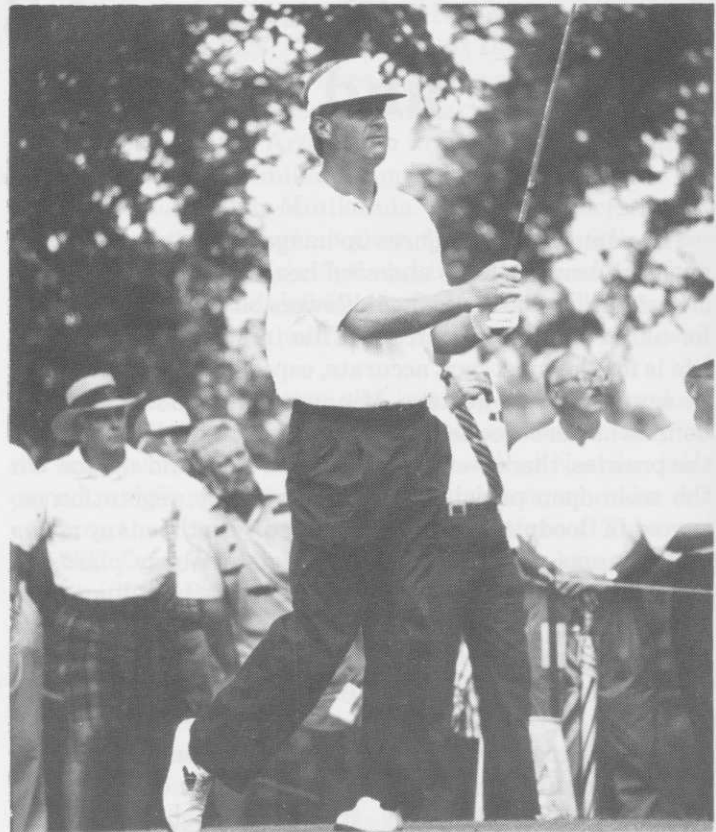
What are your favorite golf courses in Minnesota?  
*Hazeltine, Edina, Interlachen.*

Any favorite holes?  
*I like shorter holes that have a high risk/reward potential that all players can play - in many different ways.*

With your play in 1993 being exceptional, what are you planning for 1994?  
*Augusta, Memorial, Colonial, U.S. Open, British Open for Pro tournaments. George Coleman Invitational, Sunnehanna Amateur, Porter Cup, National Car and U.S. Amateur and U.S. Mid Amateur.*

How does John Harris set goals?  
*I try to keep improving, try to keep challenging myself to get better. I listen to people who know more about golf than I do.*

How do you feel about the Superintendent's role at the golf course?  
*Very important role. Communication between pro and manager is essential. Superintendent's role has changed in the last five years. Besides current education requirements, communication skills are key.*



**USGA National Amateur Champion John Harris** was also low amateur in the 1994 Masters.

Who is your role model and why?  
*Jack Nicklaus and Jay Sigel. They both keep golf in perspective, family comes first. Good organizational skills. They have been good for a long time.*

When playing golf courses, do you have any favorite architects?  
*I have had some success on Pete Dye courses. I admire the work of Donald Ross and Alister McKenzie.*



**Edina CC's Dream Team** threesome from left are Bill Johnson, superintendent, John Harris, USGA National Amateur Champion and Dave Simeon, assistant superintendent.

# Trees and Shrubs of the Prairie and Savanna Regions of Minnesota

By Paul Jackson, Restorationist

The name prairie conjures up images of wide open spaces, with the leaves, stems and seed heads of hundreds of species of native grasses and wildflowers blowing in the breeze for as far as the eye can see. This image of early prairie life is for the most part accurate, especially for those areas in southern and western Minnesota. In addition to the dominant herbaceous growth which prevailed throughout the prairies, there were also scattered trees and shrubs. On the wide open prairie, most of this woody vegetation occurred in floodplain forests associated with the many rivers and streams which drained the region. Woody plants in these areas were able to establish themselves due to the high moisture content of the soils occurring along these seasonally-inundated corridors. Since wildfires were not common in these areas, woody vegetation gained the upper hand.

A second, more prominent type of grassland/woodland interaction occurred in Minnesota at the time of settlement and is still visible today. Running roughly from the southeast to the northwest corners of the state was the tension zone between grassland and forest. This zone has been referred to as the savanna region of the state. Savanna is a plant community type, which by definition is composed of more than one tree per acre but with less than one-half of the total area covered by the tree canopy. Numerous environmental factors are responsible for the development of this zone in Minnesota. Some of these factors include differences in soil types, climatic patterns, topography and, most importantly, fire frequency.

There are several different types of fire maintained savanna which occurred along the tension zone in Minnesota:

**1. Deciduous Savanna** is made up of three community types: *Mesic Oak Savanna*, *Dry Oak Savanna* and *Aspen Openings*. Historically, these community types were described as oak savanna, oak openings, oak barrens or aspen parklands. Examples of these types of communities can be found along the entire extent of the tension zone, with oak savanna types occurring primarily in southeastern and central portions of the state. Aspen openings were most prevalent in the northwest.

**2. Coniferous Savanna** has one community type which is associated with a prairie understory. *Jack Pine Barrens* occur primarily in dry, nutrient-poor, sand dune areas of central and northwest Minnesota.

**3. Upland Brush-Prairie** has only one community type recognized: *Mesic-brush prairie* occurs mainly along the Glacial Lake Agassiz interbeach area of northwestern Minnesota.

\*Natural community classification and naming based on *Minnesota's Native Vegetation, A Key to Natural Communities*. Version 1.5. Minnesota DNR Natural Heritage Program. 1993.

The following are lists of the more common tree and shrub species which interacted with the prairie of Minnesota, historically and today.

## Flood Plain Forest

- American elm (*Ulmus americana*)
- Slippery elm (*Ulmus rubra*)
- Green ash (*Fraxinus pennsylvanica*)  
—var. *subintegerrima*
- Cottonwood (*Populus deltoides*)
- River birch (*Betula nigra*)
- Balsam poplar (*Populus balsamifera*)
- Silver maple (*Acer saccharinum*)
- Box elder (*Acer negundo*)
- Red maple (*Acer rubrum*)
- Basswood (*Tilia americana*)
- Hackberry (*Celtis occidentalis*)
- Swamp white oak (*Quercus bicolor*)
- Northern bur oak (*Quercus macrocarpa*)  
—var. *olivaeformis*
- Quaking aspen (*Populus tremuloides*)
- Black willow (*Salix nigra*)
- Speckled alder (*Alnus rugosa*)  
—var. *americana*
- Wild grape (*Vitis riparia*)
- Poison ivy (*Rhus radicans*)
- Virginia creeper (*Parthenocissus*

*quinquefolia*)

## Upland Brush-Prairie

### Mesic Brush Type

- Young aspen (*Populus sp.*)
- Scrub oak (*Quercus sp.*)
- Slender willow (*Salix petiolaris*)
- Pussy willow (*Salix discolor*)
- Shrubby cinquefoil (*Potentilla fruticosa*)
- Bebb's willow (*Salix bebbiana*)
- Hazelnut (*Corylus americana*)
- Saskatoon (*Amelanchier alnifolia*)
- Chokecherry (*Prunus virginiana*)
- Prairie willow (*Salix humilis*)
- Leadplant (*Amorpha canescens*)

### Coniferous Savanna

#### Jack Pine Barren Type

- Jack pine (*Pinus banksiana*)
- Pin oak/Bur oak (*Quercus sp.*)  
fire stunted grubs
- American hazelnut (*Corylus americana*)
- Juneberries (*Amelanchier sp.*)

- Downy arrowwood  
(*Viburnum rafinesquianum*)

## Deciduous Savanna

### Dry Oak/Mesic Oak Type

- Northern burn oak (*Quercus macrocarpa*) —var. *olivaeformis*
- Northern pin oak (*Quercus ellipsoidalis*)
- Black oak (*Quercus velutina*)
- Black cherry (*Prunus serotina*)
- Red cedar (*Juniperus virginiana*)
- American hazelnut (*Corylus americana*)
- Leadplant (*Amorpha canescens*)
- Prairie willow (*Salix humilis*)
- Juneberries (*Amelanchier sp.*)
- Sand cherry (*Prunus pumila*)
- Gray-bark dogwood (*Cornus foemina*)
- American plum (*Prunus americana*)
- Chokecherry (*Prunus virginiana*)
- Prairie crab apple (*Pyrus ioensis*)
- New Jersey tea (*Ceanothus americana*)
- Wolf berry (*Symphoricarpos occidentalis*)

(Continued on Page 20)

## WHERE ARE THEY NOW?

# Jack Kolb's Letter Reminisces About Doug Mattson

Got the form called "WE'D LIKE TO HEAR FROM YOU!" This is a good idea and have thought many times about the interesting personalities that have passed through the ranks of Golf Course Superintendents—some with talents that could not be contained by working on the golf courses, others who balanced two careers at the same time, and still others who have had hobbies of professional status.

One such person is a fellow by the name of Doug Mattson. Doug began working for Harold Dale on what at that time was known as Willmar Country Club. Harold Dale launched a number of Superintendents on careers during the early 1950s and early '60s. Doug began working for Harold during the 1953 and 1954 seasons. He (Doug), after high school graduation, went to Chicago and worked as a draftsman for an architectural firm. Recalling his experiences with the outdoors, he decided maybe that was a better life and in the fall of 1956 enrolled in a Turf Management program that was just beginning at Penn State University.

Doug enrolled at Penn State for the 1957-1958 seasons. During the summer months he found employment with the venerable Warren Bidwell, who was Superintendent at

Seaview Country Club at Absecon, N.J. near Atlantic City.

Then came the U.S. Army which, at the time, was busy interrupting careers and lives trying to stem the cold war with Russia. Doug served the military from 1959 until a cajoling letter to the Army from myself, then Golf Course Superintendent at Minikahda, got him an early release for the 1961 season at Minikahda. Doug had arrived at Minikahda at an important time, for later that fall we began construction of No's. 3, 6 and 8 greens in an October fourth snowstorm that left four inches of snow. The weather relented and laboring well into December the project was completed.

Golf course construction was just beginning to awaken and Doug, through Dr. Jim Watson, was recommended for the construction of a new golf course called Normandale, owned and financed by Gerald Rauenhurst, who was developing the area where I-494 and 100 intersect. This was in 1962. Doug's talent as a draftsman gave him employment with the Rauenhurst Company (now known as OPUS) during the winters.

Doug's reputation was growing. He was pursued by Minneapolis Golf Club and became its Superintendent through the 1963-1964 seasons. For whatever reason, the writer is not sure, Doug was drawn to the northern part of Minnesota (the writer thinks it was love) and after marriage the position of Superintendent at Bemidji Town and Country Club was offered him. As you know, winters are long in Bemidji and the young Superintendent needed extra pay. So he pursued a job at a local bank, (just for the winter months) to keep himself and his growing family in

(Continued on Page 36)



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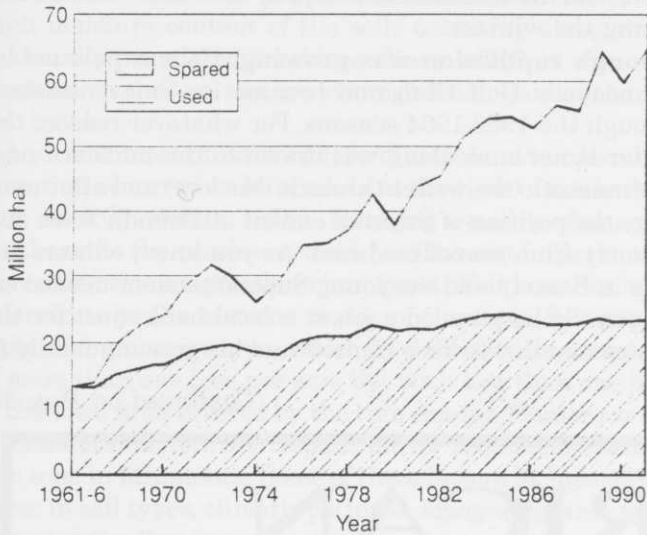


# How Much Land Can Ten Billion People Spare for Nature?

- If people keep on eating and multiplying and farmers keep on tilling and harvesting as today, the imperative of food will take another tenth of the land, much from Nature. So farmers work at the hub of sparing land for Nature.

- Calories and protein from present cropland would give a vegetarian diet to ten billion. A diet requiring food and feed totaling 10,000 calories for ten billion. However, this obviously would exceed the capability of present agriculture on present cropland.

- The global totals of sun on land, CO<sub>2</sub> in the air, fertilizer and even water could produce far more food than ten billion need.



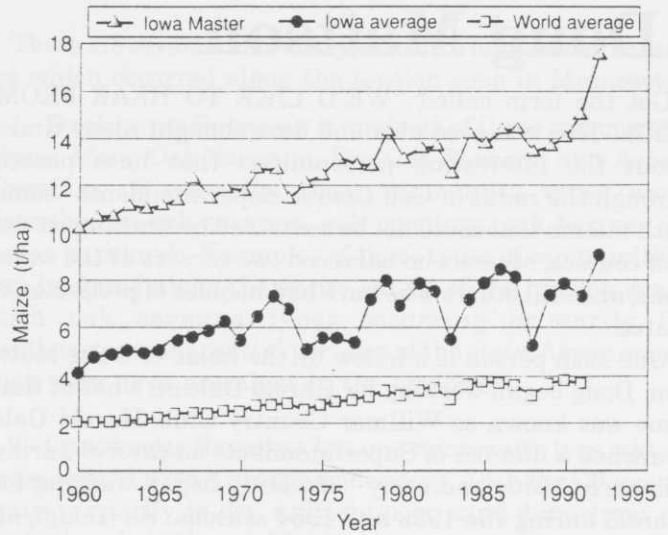
The land that Indian farmers spared by raising wheat yields. The upper curve shows the area that they would have harvested at 1961-1966 yields to grow what they produced. The lower curve shows the area that they actually harvested. They spared the difference. The figure extends a table compiled by Borlaug (1987).

- By eating different species of crop and more or less vegetarian diets, people can change the number who can be fed from a plot. And large numbers of people do change diets.

- Encouraged by incentives, farmers use new technologies to raise more crop per plot and more meat and milk per crop, keeping food prices down despite rising population. Differences in yields among nations and between average and master farmers continue showing that yields can be raised more.

- Foreseeing the future demands seeing through fluctuations in crop production.

- For each ton of production, growing more food per plot lessens the fallout, for instance, of silt and pesticides, into the surroundings. If several limiting factors are improved together, even adding water and fertilizer can diminish fallout.

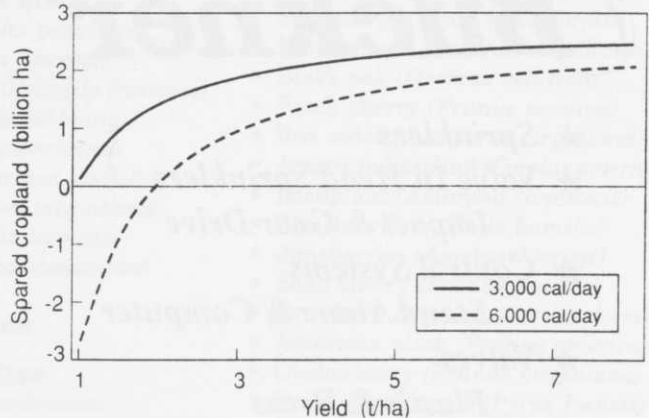


Annually since 1960, the farmers of the world lifted average corn yields 0.06 t/ha. In the Tall Corn State, Iowa farmers lifted their average 0.10. And winners of the Iowa Master Corn Grower's Contest stayed ahead, pushing up winning yields 0.14. So far, rising averages continue sparing land, and the persisting gap between averages and winners sustains hope for future sparing.

- Although the uneven distribution of water among regions and its capricious variation among seasons plague farming, opportunities to raise more crop with the same volume of water kindle hope.

- In Europe and the United States, rising income, improving technology and leveling populations—which all nations aspire to—elicit forecasts of shrinking cropland.

- So by harvesting more per plot, farmers can help ten billion spare some land that unchanging yields would require to feed them. Glimmers can be seen even of changing diets, never-ending research, encouraging incentives and smart farmers feeding ten billion at affordable prices while sparing some of today's cropland for Nature.



Sparing part of 2.8 billion ha as farmers raise yields and ten billion people each account for 3,000 or 6,000 calories daily. The 2.8 is

(Continued on Page 36)