



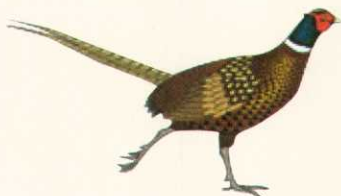
The Savory Supe

By Scottie Hines, CGCS
Windsong Farm Golf Club



Pheasant and Jalapeno Poppers

As we move into early winter here in the great state of Minnesota, I know many of you are spending some much-needed time away from the daily grind of the golf course. I also know many of you like to hunt. I am always looking for new ways to present and cook game. This recipe was introduced to me by one of my hunting pals. It is exceptionally easy and delicious!



What you will need:
2 to 4 fresh pheasants
1 pound bacon
Jalepenos, sliced
Salt
Pepper
Toothpicks

Wash the fresh pheasant breast and cut into approximately 1-inch cubes. Lightly season the chunk with salt and pepper. Add 1 jalapeno slice. Wrap in half a slice of bacon and secure with a toothpick. Bake at 300 degrees until bacon is done. You may have to flip the poppers once while baking. When the bacon is done, the pheasant is done. Serve warm.

Pheasant is a very lean meat and tends to get dry when baked. It is best to use the cheapest and fattiest bacon you can find. The added grease from the bacon keeps the pheasant moist.

This recipe also works well with rabbit and venison.

Enjoy!



Happy Holidays



from

Superior Turf Services, Inc.

***“We appreciated the opportunity to serve you in 2008
and look forward to helping with your turf needs in 2009”***

Jeanne and Larry Thornton
612-804-1692

Matt Schmid
612-366-4128

A RESPONSIBLE CHOICE!

Environmental Stewardship on Minnesota Golf Courses

By **MICHAEL BROWER**

Golf Course Superintendent, Minnesota Valley Country Club

With hundreds of golf courses spread throughout the great state of Minnesota, collectively these courses represent a large amount of valuable acreage. Within this acreage lies a great deal of natural resources. Golf courses are very unique in this respect, a great sport traditionally played in the great outdoors, in and around nature itself.

As golf course Superintendents, we've primarily been employed to manage these acres to provide a recreational playing field for golfers. But in addition to this, we have a basic responsibility to manage and care for the land in a responsible manner. It's called being an "environmental steward." To meet this description, one must commit to environmental quality by protecting the environment, conserving natural resources and sustaining and improving wildlife habitat. When we do all of this, golf courses become one of the best types of land development. I ask you all, are we at a place in time where this is commonplace, or is it still just a fad? Have you adopted this total commitment to the environment? If not, now is a perfect time!

A good number of golf course Superintendents have documented their adoption of an environmental ethic by becoming Certified Cooperative Sanctuaries through Audubon International. Audubon International provides a wonderful source of education and assistance for Superintendents in their environmental stewardship practices. Visit

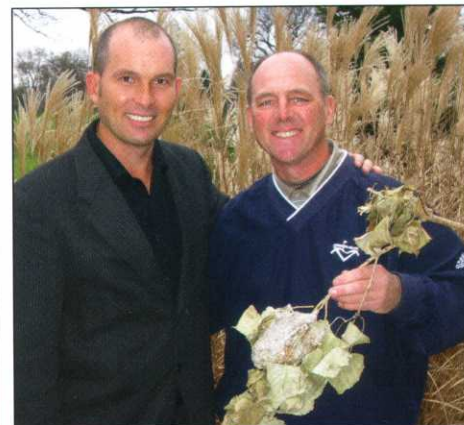
their website at www.auduboninternational.org. The following 24 Minnesota golf courses are fully certified Audubon Cooperative Sanctuaries. There are also 23 additional courses in the state that are members in the process of becoming certified. Please contact me, Audubon International, or one of the following certified courses near you to find out more!

Baker National Golf Course
Birnamwood Golf Course
Braemer Golf Course
Crystal Lake Golf Course
Dakotah Ridge Golf Club
Hastings Country Club
Izaty's Golf and Yacht Club
Keller Golf Course
Legacy Courses at Cragun's (*Bronze Signature*)
Meadowbrook Golf Course
Minnesota Valley Country Club
Somerset Golf Club
Somerset Country Club
Spring Hill Golf Club
Superior National at Lutsen
Tartan Park Golf Course
The Minikahda Club
Theodore Wirth Golf Course
Town and Country Club
TPC Twin Cities
Wayzata Country Club
White Bear Yacht Club
Wilderness Golf Course at Fortune Bay
Woodhill Country Club

In our effort to educate and inform our members, their guests, and patrons of Minnesota Valley Country Club, we recently put together a tri-fold brochure which highlights our environmental stewardship practices. In an effort to provide useful ideas for other golf courses, we have printed the entire brochure here. I encourage you all to adopt an environmental ethic, join Audubon International and become certified sanctuaries. It adds a lot of enjoyment to the work we perform, and assures that the golf course environment is responsibly managed, improved and sustained for future generations of golfers. Now is the perfect time!

The Course

Designed by Mr. Seth Raynor in 1924, the golf course sits on 147 acres of gently rolling terrain above the great Minnesota River Valley. The course environment, including micro-climate, wildlife and landscape, is heavily influenced by its close proximity to the river valley and the Minnesota Valley National Wildlife Refuge just 400 yards to the south.



Minnesota Valley Country Club Superintendent Mike Brower, right, recipient of the 2008 MGCSA Environmental Leader Award, shows MVCC General Manager, Steve Gilles, a northern oriole nest that recently blew down from a tree on the course.

Once a nearly treeless acreage of farmland and pasture, the golf course is now a good integration of open space and mature trees. Over 1,000 mature trees grace the property, including over 40 majestic elm trees and over 150 magnificent oak trees. Many naturalized areas of fescue and wildflowers adorn the course, which add to the natural beauty of the property.

A highly motivated and educated staff is dedicated to providing an outstanding golf course for its members, guests and patrons. This dedication to course maintenance and environmental stewardship gives great pleasure to playing or visiting this magnificent property.

(Continued on Page 13)



Pond, milkweed and No. 12 tee



No-mow, pines and bluebird houses

Minnesota Valley—

(Continued from Page 12)

Key Environmental Management Categories

Environmental Planning: MVCC evaluates the natural resources of the property and acts responsibly to balance the natural environment with golf.

Wildlife and Habitat Management: MVCC implements practices which enhance habitats and promote wildlife and biodiversity conservation.

Chemical Use Reduction and Safety: MVCC staff employ techniques to safely store, handle and apply chemicals using best management practices.

Water Conservation: MVCC maximizes efficiency and minimizes waste by employing water conservation irrigation practices.

Water Quality Management: MVCC employs environmentally sensitive management to protect the health and integrity of all water resources.

Outreach and Education: MVCC utilizes a variety of education and outreach activities to communicate the importance of environmental stewardship to its members, guests, patrons and the community.

Environmental Stewardship Practices

Bluebird Trail: Bluebirds abound at Minnesota Valley! We average 80 fledged bluebirds from our 30 houses on the golf course!

Olson Elementary: MVCC has adopted nearby Olson Elementary as a sister sanctuary, assisting them with developing their Audubon program, utilizing the golf course as an outdoor classroom, developing outdoor education areas on their campus and donating plant material and labor to beautify and improve their learning environment.

Recycling: MVCC has developed a far reaching recycling program which includes glass, plastic, paper, aluminum, various metals, machinery and appliances.

Hazardous Waste Recycling: All hazardous waste such as waste oil, oil filters, batteries, fluorescent bulbs, and paint by-products is safely col-



Aeration of No. 18 green

lected and recycled.

Resource Advisory Committee: Quarterly meetings of staff, members and consultants dedicated to the various environmental projects at MVCC.

Safety Committee: Monthly meetings of staff dedicated to providing a safer and healthier workplace for members, guests, patrons, and employees.

Environmental Lake: 2.5 acre natural lake focusing on wildlife habitat.

Natural Areas: 13.5 acres of low maintenance fescue and wildflowers.

Bird Feeders: Nine birdfeeders provide essential food in winter months.

Waterfowl Nesting Structures: Mallards, Wood Ducks, Mergansers, and other waterfowl frequently utilize the nesting structures provided on the golf course.

Wildlife Habitat: On-going philosophy of preserving and enhancing wildlife habitat.

Cultural Practices: An excellent Integrated Pest Management program is practiced that guides decision-making and cultural maintenance practices such as water management, pesticide use, fertilizer use, plant selection and cultivation procedures.



Flowers at Minnesota Valley

Wildlife

known to nest or live at Minnesota Valley or are annual visitors to the property

Feathered Friends

American Bittern
Gray Catbird
Great Blue Heron
American Robin
Green Heron
Brown Thrasher
Night Heron
European Starling
Turkey Vulture
Cedar Waxwing
Canada Goose
Ovenbird
Wood Duck
Northern Waterthrush
Mallard
Wilson Warbler
Bufflehead
Chipping Sparrow
Common Golden Eye
Dark Eyed Junco
Hooded Merganser
Northern Cardinal
Common Merganser
Rose-Breasted Grosbeak
Bald Eagle
Indigo Bunting
Coopers Hawk
Red-Winged Blackbird
Red Tail Hawk
Common Grackle
Ring-Neck Pheasant
Brown-Headed Cowbird
Wild Turkey
American Coot
Virginia Rail
Mourning Dove
Ruby Throated Hummingbird
Belted Kingfisher
Red-Bellied Woodpecker
Downy Woodpecker
Hairy Woodpecker
Common Flicker
Pileated Woodpecker
Eastern Pee-Wee
Yellow Throated Vireo
Solitary Vireo
Blue Jay
American Crow
Tree Swallow
Barn Swallow
Black Capped Chickadee
White Breasted Nuthatch
Brown Creeper
House Wren
Golden Crowned Kinglet
Ruby Crowned Kinglet
Eastern Bluebird
Veery
Brewers Blackbird
American Goldfinch
House Finch
Pine Siskin
House Sparrow
Northern Oriole

Reptiles

Snapping Turtle
Painted Turtle
Common Garter Snake
Tiger Salamander

Mammals

Opposum
Eastern Mole
Eastern Cottontail Rabbit
Woodchuck
Eastern Chipmunk
Eastern Gray Squirrel
Red Squirrel
Plains Pocket Gopher
White Footed Mouse
Muskrat
Coyote
Red Fox
Raccoon
Striped Skunk
White Tail Deer

Amphibians

Spring Peeper Frog
Striped Chorus Frog
Green Frog
Northern Leopard Frog
American Toad

MVCC's Annual Calendar of Audubon Events

March

Prepare Waterfowl Nests

April

Environmental Awareness Day

Earth Day Celebration

Arbor Day Tree Planting

May

Migratory Bird Day

Olson Elementary Outdoor Classes

Bluebirds Birth-Days Week

July

Kid's Campout

Kid's Nature Hike

October

Birdfeeders Gala

December

Ski Trail Opens

Renovating Golf Course Bunkers: Five Factors to Consider

By KEVIN NORBY

Herfort-Norby Golf Course Architects

Much of the work which we are doing today involves renovating existing golf courses. Depending in part on the age of the course, the scope of these projects varies greatly from completely rebuilding putting greens or tees to improving fairway drainage and renovating bunkers. Since it would be impossible to adequately cover all types of renovation projects with such limited space, I've limited this particular article to identifying five important elements to consider when planning a bunker renovation project.

The Maintenance Budget

If the course is going to be a public golf course with a somewhat more limited budget, we'll try to create bunkers that are easier to maintain. We may still have elaborate capes and bays but the sand will probably be somewhat flatter in the bottom so that it can be maintained with a sand pro as opposed to requiring hand raking to pull the sand back up on the faces. Softer less rounded capes and grass faces can be maintained with more traditional rough mowers and sidewinder units. The more rounded

capes and steeper grass faces may require mowing by hand or using string trimmers. If the course is private or a higher-end destination course with a more substantial maintenance budget, we might not only create more bunkers but they will likely be somewhat larger and more dramatic. This might mean the capes get more rounded, the sand gets flashed up higher and we might use a more expensive white sand such as that which is available from Ohio or Arkansas.

Placement and Visibility

In my opinion, it is critical that bunkers and, for that matter, all hazards be visible. I think that the golf holes which are the most memorable are the ones where the golfer can see everything unfold in front of them. We want the golfer to be able to see the entire hole or landing area when preparing to hit his shot so that he can make an informed decision on how to play it. For that reason, we would generally not put bunkers on the back side of a hill or behind a green where they can't be seen. However, with that said, there are times where we might propose a "catch" bunker or a "savior" bunker in that location. For instance, if there is water behind the green, we may put a bunker behind the green to gather a shot that might trickle off the green, rather than penalizing a player a full stroke for only slightly mis-clubbing.

In the fairway, we use cross bunkers, directional bunkers or framing bunkers to frame the hole, define the landing areas and to create strategy. Around the green, we use bunkers to guard the green and to create preferred angles of approach. Generally, greenside bunkers are a little deeper and a little more dramatic than fairway bunkers. How far we place the bunker from the putting surface is dependent in part upon the length of the hole, the size of the green, how difficult we want the hole to play and, again, the type of course we are working on.

Drainage and Erosion Control

There are a lot of ways to build bunkers but the one thing they all must have in order to function properly is drainage. Often times, if a course is contemplating a bunker renovation project, it is because its sand no longer drains properly and because the lies are inconsistent. It doesn't really matter whether you want more traditional bunkering with flat sand and grass faces or whether you want elaborate capes and bays with the sand flashed up high on the faces. They all need good drainage. This includes drainage in the bottom of the bunker to evacuate water as well as paying attention to how much water actually runs into the bunker from the surrounding area. Generally, what tends to happen over time is that bunker sand gets contaminated with silt which either washes in from the surrounding area or washes in from the exposed faces of the bunker. In time, that silt then tends to plug up the pores in the sand and the sand loses its ability to drain quickly. To minimize this, it is important that the

(Continued on Page 15)

From our family to yours



and thank you for your business!

John, Lori, Will, Tom, Randy and Larry



TWIN CITY SEED COMPANY.

"16 years and growing"

**7265 Washington Avenue South
Minneapolis, Minnesota 55439
1-800-545-TURF or 952-944-7105
twincityseed@twincityseed.com**

Bunker Renovation-

(Continued from Page 14)

area surrounding the bunker complex be designed so that a minimal amount of water is actually running into the bunker. In part, we do this by adding small mounds and features which help direct the water or by creating swales around the bunker.

How we finalize the grassing of the bunker complex to control erosion and to get the project back into play is again dependent upon the budget and the overall character or style of the course. Generally, we would either try to sod the bunker surrounds or we would use seed and an erosion control blanket. Sod is a bit more expensive than seed but gives us an almost immediate look of completion. If the bunker faces and capes are going to be maintained at 2 or 2 1/2" height, then sod is probably the best solution. However, if the club is looking to maintain the capes in fescue or at a taller cutting height, then seed and blanket might be the best choice so that we can be more selective about the turf grass varieties.

The Sand

To some degree, which sand we choose for a bunker renovation project is a function of budget and, again, the type of course which we are working for. What is important is that the sand drains quickly and that it sets up firm enough that balls don't plug. A little bit coarser sand with some particles that are more angular rather than round is generally best. Depending on where you are in the country, there are some very good local bunker sands where you might spend only \$13 to \$15 a ton. You also usually have the option of bringing in a USGA sand for \$30 to \$40 per ton. If the club has the money, we might look at bringing in a premium white sand which usually cost somewhere in the \$90 to \$110 per ton range.

Disruption of Play

One of the most important issues to consider is how to minimize the potential for disruption to play during your renovation project. In most cases, we prepare a bunker renovation plan and then work with the Club to determine how to complete the project over a 3- to 5-year period of time. We may decide to do a few holes

each year or we may decide to do all the holes at one time. Fortunately, bunker renovations are generally not so disruptive that we can't continue play during construction. In the Midwest, the best time for a bunker renovation project is usually in July and August since the chances of weather delays which might prolong the project are reduced. However, with tournament schedules and with fewer golfers in the fall, most clubs seem to opt for a September project schedule. With a well-defined project scope and a good contractor, we can make the necessary changes and have the disturbed areas regressed quite quickly and be ready for play by spring. The key is to start with an overall plan on how to complete the project and then use an experienced golf architect and an experienced golf course contractor to insure that the project is completed properly and on time.

* * * *

(Editor's Note: Kevin Norby is the owner and principal of Herfort Norby Golf Course Architects, LLC. of Chaska, Minnesota. Kevin may be reached at (952) 361-0644 or via email at golfnorby@earthlink.net or visit www.herfortnorby.com.)

patented **impermeable** protection • ripstop reinforcement

an impermeable barrier between
your turf & the winter elements!

green jacket®

- Minimizes temperature fluctuations.
- Protects against ice damage.
- Protects from crown hydration and desiccation.
- Provides years of easy installation & storage.
- Lightweight and durable.

for more details and free samples
GreenJacket.com or 888-786-2683

Minnesota, early spring—
actual customer photo not retouched!

millions of square feet of turf protected • see photos & research results online

Season's Greetings



*All of us at
MTI
Distributing
join in
wishing you a
Peaceful
Holiday Season
and a
Successful
New Year*

MTI Distributing, Inc.
4830 Azelia Avenue N., #100
Brooklyn Center, MN 55429
(763) 592-5643
(800) 362-3665

MTI Distributing, Inc.
2131 16th Street N., Suite C
Fargo, ND 58102
(701) 201-0775
(800) 782-1031



Look at what the elves came up with this year.



Toro Reelmaster® 5010 Series

- Legendary Cutting Units
- Low impact
- Operator comfort
- Power transfer
- Maximum Productivity
- Precision Cut

Toro Workman® MD Series

- SRQ™ - Superior Ride Quality
- Active-in-Frame™ Twister Joint
- 14hp, 480 cc Briggs and Stratton® Vanguard®



Toro Pro Force™ Debris Blower

- Wireless remote
- Industry leading air flow
- Axial flow turbine blower for greater efficiency
- 3-position adjustable trailer tongue
- Impact resistant plastic nozzle

What did you ask Santa for?



A Guide for Development of Pruning (Version 1.0)

By CHAD GIBLIN and JEFFREY GILMAN

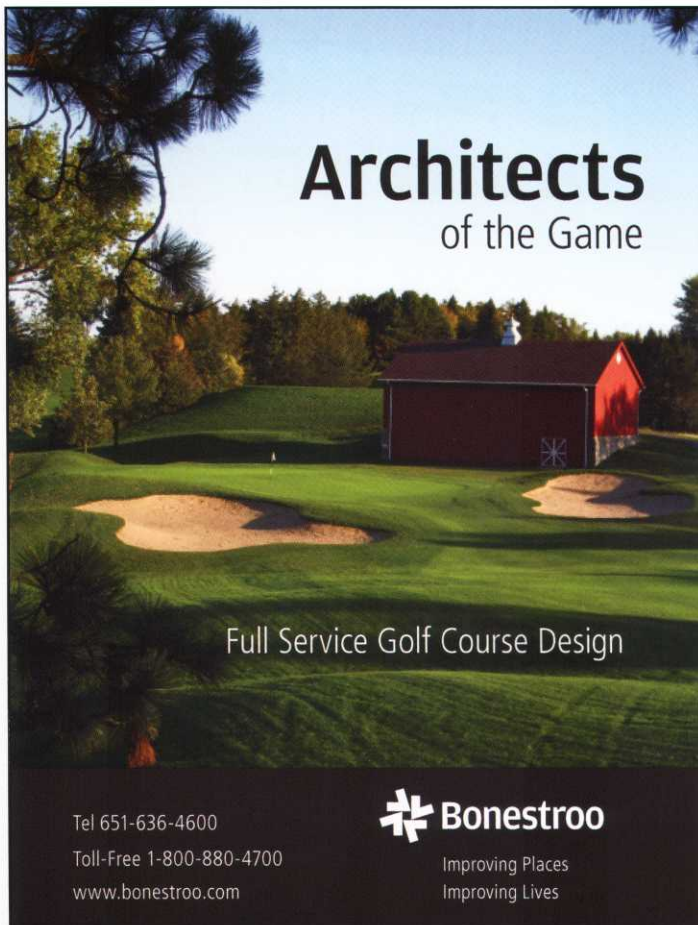
The Urban Forestry and Horticulture Institute

Department of Horticultural Science, University of Minnesota

- All pruning cuts should be made to minimize wounding, preferably at a right angle to the main stem.
- Flush- and stub-cuts should be strictly avoided.
- Select and maintain a strong, healthy, central leader.
- This should have already been done after the pruning in the nursery; however, future co-dominant leaders should be scouted for and carefully removed if they appear.
- Overly aggressive central leaders may have to be headed back to a lower branch or node if they appear to bend away from the central position.
- Establish guidelines for a temporary branch zone.
- Temporary branches are those which appear below the height of the final canopy.
- American and hybrid elms should tolerate a lower live crown ratio (LCR) than the recommended 60% LCR.
- Lower LCRs at or shortly after planting reduce the need to remove large, temporary branches later or after long pruning

cycles.


- Remove branches with narrow crotches or visibly poor attachment in the temporary branch zone.
- Simultaneous removal of "Clustered Branching" appearing at a single point on the main stem can cause poor compartmentalization and internal decay.
- Clustered branches may have to be removed in phases depending on their diameter.
- Use suppression pruning cuts to slow growth until removal.
- Suppress growth of competing side branches that may compete with central leader.
- Always make heading back cuts to an existing branch crotch or dormant bud to avoid excessive water-sprouting at the wound site.
- Remove lower, temporary branches before they reach a branch aspect ratio of 1:3 (*before the temporary branch reaches a diameter 1/3 that of the stem where they are attached*).
- If temporary branches cannot be removed in one pruning event, the branches should be suppressed using heading-back cuts to an existing branch crotch or bud to slow their growth at the point of attachment.
- Sterilize tools at frequent intervals to minimize spread and outbreak of bacterial wetwood diseases.



Architects
of the Game

Full Service Golf Course Design

Tel 651-636-4600
Toll-Free 1-800-880-4700
www.bonestroo.com

 **Bonestroo**
Improving Places
Improving Lives

GENERAL PRUNING GUIDELINES

Removal of Co-dominant Leaders

- Co-dominant leaders compete for valuable resources and a place in the mature crown of any tree.
- Due to the nature of this species and previous maintenance on them, co-dominant leaders should be scouted for, and removed, on an annual basis.
- Co-dominant leaders occasionally appear during the growing season and may overtake the existing central leader.
- If co-dominant leaders cannot be removed in one pruning cycle, they should be suppressed back to a lower bud or side branch.
- Don't worry about "proper" pruning cuts at this time; suppressed co-dominant leaders can still form a branch protection zone (BPZ) and should be removed at the main stem within a year or two.
- Extremely sharp, fine-toothed pruning saws and shears are required for any type of summer pruning on elms.

(Continued on Page 19)

A Guide for Development of Pruning -

(Continued from Page 18)



Figure 1: Severe decurrent growth after "tipping-back" in the nursery (*U. americana* 'Princeton')



Figure 2: (above) After co-dominant removal and suppression of side branches (*U. americana* 'Princeton'). This tree still requires several suppression cuts on co-dominant leaders.



Figure 3: Overgrown Accolade™ elm (*U. japonica* x *wilsoniana* 'Morton') in boulevard.



Figure 4: After crown raising and suppression of co-dominant leaders.

Rescue your course from the effects of summer stress. Use Trinity and get

**better
TURF™**



Finally, an SI you can use in the summer! **Trinity™ fungicide** delivers superior control of tough diseases like anthracnose, brown patch, take-all patch, summer patch and dollar spot — all without unwanted PGR effects. **Trinity** even suppresses algae, giving you improved turf quality for a healthier course. Save your turf this summer. Use **Trinity**.

Find out more: betterturf.com
Find a turf care supplier:
800-545-9525

**We Don't Make The Turf.
We Make It Better.™**

 **BASF**

The Chemical Company



Trinity™
FUNGICIDE

Always read and follow label directions.
Better Turf, Trinity and We Don't Make The Turf. We Make It Better. are trademarks of BASF.
©2007 BASF Corporation. All rights reserved. APN 07-14-002-0024