**BRIEFS**

**NATURE'S CHOICE**

PHOENIX, Ariz. — Nature's Choice is the theme of the 1995 Southwest Horticultural Trade Show at Phoenix Civic Plaza here, Sept. 7-8. The Cacti and Pine Golf Course Superintendents Association and Golf Course Superintendents Association of America will present educational sessions on the overall topic of Turf Stress Management. More information is available from the Arizona Nursery Association at 1430 W. Broadway, Suite A125, Tempe, Ariz. 85282; (602) 943-1610.

**NORTH OF THE BORDER**

VANCOUVER, British Columbia — The Canadian Golf Superintendents Association (CGSA) will hold its 47th Turfgrass Conference for Trade Show at the Van- couver Trade and Convention Centre here, March 2-3. More information is available from Andrea Franks at CGSA, 5580 Explorer Dr., Suite 509, Mississauga, Ontario L4Y 1H1; (905) 602-8873.

**BLEIER HIGHLIGHTS N.Y. CONCLAVE**

ROCHESTER, N.Y. — Rocky Bleier, former Pittsburgh Steeler, will headline the four-day annual educational conference and trade show cosponsored by the New York State Turfgrass Association (NYSTA) and Cornell University. The keynote is scheduled for Nov. 8, at 9 a.m. As an added feature, pesticide course and workshops will be offered by Advanstar Communications, "Container System Design: Chemical Storage, Mixing and Recycling" by Fredric R. Haskett contains information that will allow operators to design and construct an affordable, viable and safe facility to store handle, mix and recycle pesticides, fertilizers and other chemicals. It explains how to prepare for the scrutiny of government regulators and comply with new regulations; explores the legal implications of noncompliance; and discusses the cost of recycling finished product residues versus the cost of having them disposed of by an outside agency. Container System Design costs $74.95. Copies can be ordered by calling 1-800-598-6008.

**CONTAINMENT SYSTEM DESIGN**

CLEVELAND, Ohio — Published by Advanstar Communications, "Containment System Design: Chemical Storage, Mixing and Recycling" by Fredric R. Haskett contains information that will allow operators to design and construct an affordable, viable and safe facility to store handle, mix and recycle pesticides, fertilizers and other chemicals. It explains how to prepare for the scrutiny of government regulators and comply with new regulations; explores the legal implications of noncompliance; and discusses the cost of recycling finished product residues versus the cost of having them disposed of by an outside agency. Container System Design costs $74.95. Copies can be ordered by calling 1-800-598-6008.

**MAINTENANCE**

**Wildlife studies complement one another**

Audubon investigating from the point of view of sustainable resources

By MARK LESLIE

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ELKIRK, N.Y. — In fortuitous timing for an industry seeking wisdom about golf's environmental impact, the Audubon Society of New York (ASNY) is undertaking a wildlife study that dovetails with the U.S. Golf Association's (USGA) Wildlife Links program overseen by the National Fish and Wildlife Foundation.

"This came about at a fortunate time because I was in the process of instituting the Audubon Center for Sustainable Resource Management (ACSRM)," said ASNY President Ron Dodson.

Wildlife Links and ACSR

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**Experts urge aggressive defense vs. Lyme disease**

RESEARCH TRIANGLE, N.C. — Despite more than a decade of public awareness, the number of reported Lyme disease cases remains high, and some experts are now recommending a more aggressive approach for controlling the ticks that carry this potentially debilitating disease.

Many medical health-care experts and university extension offices now urge homeowners in high-risk areas to treat their lawns and lawn peripheries with an insecticide to reduce populations of the ticks which vector this disease. The primary vector of Lyme disease is the deer tick, also known as the black-legged tick.

Although ticks are most commonly found in wooded, overgrown and weedy areas, many Lyme disease victims are bitten by ticks in their own yards, and the use of protective clothing and insect repellent alone have not been successful in checking the spread of the disease. In 1994, more than 10,000 new cases of Lyme disease were reported in the United States, according to the national Centers For Disease Control (CDC). More than 57,000 cases of Lyme disease have been reported since recording of these cases first began (1982-1993).

In high-risk areas, such as the Northeast coastal states, North Central states and parts of the West Coast, an application of a commonly used home insecticide can help reduce deer tick nymphs and adults in home lawns and lawn peripheries by up to 95 percent.

Although symptoms are sometimes absent, Lyme disease is usually initially characterized by the presence of a bull's-eye shaped rash at the site of the tick bite, followed by fever, headache, fatigue and pain in the muscles and joints. Although it is treatable with antibiotics, if left untreated, the disease may result in double vision, chronic arthritis, meningitis, hearing loss, cardiac problems, memory loss

No Dutch treat for elm lovers

By DAVID M. ROSE

GROSSE POINTE FARMS, Mich. — In the early part of this century, golfers teeing off here at the Country Club of Detroit enjoyed the shade and splendor of more than 5,000 stately American elms. Today, all but 300 are gone, victims of the deadly Dutch elm disease. Sadly, the situation in Detroit is by no means unique.

Introduced to the United States in shipments of contaminated logs in the 1920s, Ceratocystis ulmi, the fungus that causes Dutch elm disease, has reduced the North American elm population by 50 to 80 percent over the last 75 years. But newly developed fungicides and disease-resistant elm varieties are beginning to turn the tide.

To understand the options for dealing with Dutch elm disease, it is necessary to understand the life cycle of the fungus. Fungal spores are carried to the tree by the elm bark beetle, which feeds on tender new shoots and bark. Once inside, the fungus invades the xylem, the water-carrying vessels of the tree. As the fungus proliferates, the xylem becomes blocked, resulting in wilting, yellowed leaves, and death.

Superintendents hoping to vanquish Dutch elm disease, the approaches are basically three: kill the bark beetle, kill the fungus itself, or plant elms that are less susceptible to the fungus' lethal effects. The most common means of controlling bark beetles is treatment with the pesticide Methoxychlor. The Elm Research Institute (ERI) of Harrisville, N.H., a non-profit institution dedicated to the preservation of the American elm, recommends trees be sprayed prior to leaf emergence each year. By heading off the annual influx of hungry bark beetles, according to ERI, continued on page 21

GOLF COURSE NEWS
By MARK LESLIE

CARY, N.C. — The Audubon Society of New York State (ASNY) has launched a national conservation service program to provide environmental and agronomic services to members of its Audubon Cooperative Sanctuary System (ACSS).

Called Audubon Conservation Services (ACS), the program will "promote environmental planning and conservation of our natural resources through on-course education and services for ACSS-member golf courses," said ASNY President Ron Dodson.

"Every aspect of the ACS program will promote sustainable resource management objectives dedicated to maximizing the quality and playability of the golf courses while minimizing environmental exposure."

Using a team approach, it will deal with course management issues through environmental planning; wetlands, water-quality and storm-water management; fertilizer and pesticide programs; and agronomic and environmental integration.

ACS will not compete with the U.S. Golf Association Green Section advisory services, Dodson said, because "we are going to be doing things they normally don't look at."

In fact, Green Section National Director Jim Snow, giving "100 percent endorsement" for ACS, has asked Audubon personnel to do "a training session for their people this fall," Dodson said. "We will develop a check list for their regional agronomists to use when they do their turf advisory visits. They will look for things that we are going to focus on, such as maintenance complex design, wash-down areas and pesticide storage."

The cornerstone of ACS is to provide technical leadership by professionals with agronomic and environmental experience in golf course development and management. It will be led by senior scientist Dr. Miles (Bud) Smart and Dr. Charles H. Peacock. Each has more than 17 years of experience in his field.

Collectively, they have provided services at more than 100 golf course and land-use projects.

"They have essentially signed a unique partnership agreement with Charles and Bud," Dodson said. "Their Turf Science Group is a member service for the Audubon Cooperative Sanctuary Program. So when Charles and Bud and others do their work for a fee, they will be representing Audubon Society of New York."

"Additionally, doctorate-level scientists will provide expertise in areas of aquatic ecology, toxicology, risk assessment, environmental statistics and modeling, wetlands ecology, hydrology and remote sensing," Dodson said. "GCSSA-certified superintendents will provide expertise on a regional basis."

The specific services ACS will offer are:

- Development of written plans for Integrated Pest Management and Best Management Practices (BMP) to develop an ecologically based approach to course management as well as incorporate BMPs to protect ecologically sensitive areas.
- Risk assessment to select the best materials for effective fertilization and control of pests in order to integrate sustainable resource management objectives.
- Constraints analysis for selection of pesticides and nutrients.
- Monitoring programs to develop systematic measures to assess golf course and environmental interactions.

The result, Dodson said, is a low-risk approach to golf course management and pesticide use.

Audubon research: golf and wildlife

Continued from page 13

Research will augment, rather than duplicate, one another, Dodson said, adding that the USGA Green Section supports the Audubon effort.

"Wildlife Links exclusively looks at wildlife on golf courses," he said. "We will look at that but many other things as well. We are revolting everything around sustainable management: plants, waste, technology, energy efficiency... We want [scientists] and others to look at our principles of sustainable resource management and see if they are adequate, if we have the answers to put those principles on paper and try to mold land developers to those standards.

"Wildlife Links is focusing on broad-brush wildlife and golf research projects. I'm interested in more long-term wildlife biology efforts."

-- Ron Dodson, ASNY president

"Wildlife Links is focusing on broad-brush wildlife and golf research projects. I'm interested in more long-term wildlife biology efforts."

-- Ron Dodson, ASNY president
USGA links up with agencies

Continued from page 13

mental organizations. It grew out of USGA-funded research by Clemson University at Kiawah Island from 1991-93 that showed courses could indeed enhance wildlife.

The USGA has designated $100,000 a year for the next three years for Wildlife Links, and the destination of those funds is being decided by a committee headed by Peter Stangel of the Fish and Wildlife Foundation and consisting of representatives from the U.S. Forest Service, Fish and Wildlife Service, International Association of Fish and Wildlife Agencies, the Audubon Society of New York (ASN), and the Environmental Protection Agency.

“We decided to begin with publications,” Snow said, “because they’d be tangible, you could put your hands on them, and they’re badly needed. People are calling from all over the country with questions. These will be a source of answers.”

One of the publications will focus on developing habitat for birds, specifying what type and how much land or water materials are needed to attract certain species. “This can be relevant for construction and existing courses,” Snow said. “For instance, if you knew it would take 10 solid acres of forest for a certain bird, you could plan for that.”

The second publication will concern how to enhance wetland areas. “Wetland here meaning ponds, streams and lakes as well as swamplike areas,” he said. “It will detail factors like kinds of vegetation that should be planted and the perimeter area around a pond to attract wildlife of different sorts; what kinds of plants you can add along the edge of the water to increase fish habitat or certain species of amphibians and reptiles; that sort of information.”

Requests for proposals are expected to be sent out in mid-August. The advisory committee will evaluate the responses and decide which bidder to accept.

It will take a few months to write and publish, Snow said. “These will be for superintendents and others like architects and consultants involved in getting permits for new construction. Anyone participating in the Audubon program will want to use these,” he said.

Long-range projects under Wildlife Links will be determined partly by how much is left after paying for the publications.

“We’re working with Clemson and will probably fund a project with them,” Snow said, adding that Clemson’s golf course that is under construction will likely be a source of wildlife study.

An important factor to Wildlife Links, Snow added, is the involvement of other wildlife specialists beyond ASNY — from government agencies and other organizations.

“They’re excited about it and so are we,” he said. “We think it’s important to broaden our scope of participation.”

The USGA is “fully supportive of what they’re (ASN) doing” with its wildlife studies through its Audubon center for Sustainable Resource Management. They’re complementing what we’re doing. They will cover a lot of things not covered in our program.

And Wildlife Links is geared toward providing resource information helping superintendents go forward with the Audubon Cooperative Sanctuary Program.

Continued from page 13

History and lore of Riviera GC is topic

“The Riviera Golf Course: A Triumph in Design,” a new UCLA Extension seminar analyzing the work of golf course designer George C. Thomas Jr., will take place Friday, Aug. 4 at 6:30 p.m., at UCLA Extension on the Third Street Promenade, 1338 Third Street Promenade, Santa Monica. The fee is $85.

This evening of golf history and lore takes place just prior to the start of the 1995 PGA Championship at Riviera Country Club. Scheduled guest speakers and panel members include golf course designers Tom Fazio and Dave Thomas, 1995 PGA Championship General Chairman Dick Caruso, and, from The Riviera staff, General Manager Peter Pino, Bill Baker, director of golf maintenance, and Geoff Shakesford.

Rounding out the program are Bel-Air Country Club golf pro Ed Marrins, Los Angeles Country Club General Manager Jim Brewer, Los Angeles times sports writer Jim Murray, sports commentator Ben Wright, and landscape architects Tom Lockett and Alexis Slafer, head of the UCLA Extension Landscape Architecture Program.