

Environmental Improvement on Golf Courses



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Audubon International

- Not-for-profit environmental organization
- Environmental priorities:
 - Watershed protection
 - Biodiversity and habitat management
 - Sustainable resource management
 - Environmental design
 - Sustainable communities

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Audubon International

- Over 2400 member sites
- 26 countries
- 600+ certified properties
- Over 550,000 acres of land
- Over 11,000 acres of wetland
- Over 600,000 associated members and stakeholders



ACSP for Golf Courses

- Supported in part by the USGA
- Involves six environmental focus areas:
 - Environmental Planning
 - Wildlife and Habitat Management
 - Chemical Use Reduction and Safety
 - Water Conservation
 - Water Quality Management
 - Outreach and Education

Chemical Use Reduction and Safety

- **Purpose:** To ensure safe storage, application, and handling of chemicals and reduce actual and potential environmental contamination associated with chemical use.
- **Goal 1: General Knowledge**
To continually expand our knowledge of integrated pest management, chemical use issues, best management practices, and alternative pest control methods.
- **Goal 2: Cultural Practices and IPM Techniques**
To maintain turfgrass in a vigorous and healthy state through sound cultural practices and integrated pest management techniques.

Chemical Use Reduction and Safety

- **Goal 3: Best Management Practices for Chemical Use**

To apply all chemical products in a manner that minimizes harmful environmental impacts.

- **Goal 4: Communication and Education**

To ensure that maintenance staff are properly trained and supervised.

- **Goal 5: Maintenance Facility and Equipment**

To ensure that chemicals are properly stored and handled, and equipment is properly maintained to reduce the potential for negative environmental impacts.

Chemical Use Reduction and Safety Example

North Shore Country Club, IL



Chemical Use Reduction and Safety Example

TPC at Craig Ranch, McKinney, TX



Insect related pesticide usage decreased by 30%/from 3 applications to 2

Chemical Use Reduction and Safety

- ACSP Participant Survey results:
 - 89% improved cultural control methods to decrease the need for chemical use
 - 82% reduced pesticide use
 - 92% use pesticides with lower toxicity levels
 - 75% reduce pesticide costs
 - Average increase of 22 acres of wildlife habitat
 - 50% increased the amount of shoreline vegetation
 - 56% increased the width of “no-spray zones” around water features

Participant Attitudes

- 99% reported that playing quality has remained the same or improve
 - 50% improved
- 99% reported that golfer satisfaction has remained the same or improved
 - 50% improved
- 100% reported that job satisfaction has remained the same or improved
 - 70% improved