



### You Make the Call

A representative from Dow AgroSciences recently called my attention to Environmental Protection Agency (EPA) legislation that may affect your maintenance practices in the near future. The Food Quality Protection Act (FQPA), signed into law by President Clinton in 1996, has been called the most significant piece of pesticide and food safety legislation enacted in years.

The legislation sets forth new safety standards for all pesticide residues. According to EPA's Web site, [www.epa.gov](http://www.epa.gov), FQPA seeks to establish "reasonable certainty of no harm" from chemical residue exposure. The law provides special protections for children, and requires that "an additional tenfold margin of safety for the pesticide chemical residue and other sources of exposure be applied to infants and children."

Previous legislation treated different uses of the same chemical independently. FQPA performs aggregate assessment of "all non-occupational sources of exposure, including drinking water, residential, and dietary exposure." The new safety standards assess cumulative exposure to pesticides and other substances with "common mechanisms of toxicity."

Tim Maniscalco, Dow AgroScience's manager of government and public affairs, told me his company agrees with the aggregate assessment principle in theory, but he questioned the validity of EPA's methodology. Maniscalco contends EPA uses "worse than worst case scenarios" to calculate risks posed by residential exposure. Interestingly enough, EPA seems to agree.

While the Agency looks to its extensive Pesticide Handlers Exposure Database to estimate applicators' exposure to chemicals, it lacks a similar tool to evaluate dangers for those who are exposed to pesticides, but who have not directly used them. Documents posted on [www.epa.gov](http://www.epa.gov) explain, "EPA's residential exposure assessments are designed to be as realistic as possible. They are, however, generally conservative and this adds an extra measure of safety when regulating pesticides. When scientists have studied people in the real world (including the children of farmworkers), they have generally found a person's exposure to be less than that predicted by our exposure assessments."

The document goes on to say the following:

- "We assume high amounts of pesticide residues will transfer to a person. Generally we assume 20-50% of the residues will transfer. Some techniques have shown that in some situations, only 1-3% of the residues are transferred. The highest reasonably possible transfer rate must be assumed for safety."
- "We assume no residue dissipation. In other words, all the residues available initially are available throughout the time a person is exposed. Dissipation rate is based on many factors (heat, sunlight, rain, etc.) so we must include the conservative prospect that in a given case there is no residue dissipation."
- "We assume that a person has no clothing on to protect themselves from exposure because little or no clothing is a possible realistic scenario in some circumstances."
- "We assume two to eight hours of continuous contact."

Residential exposure assessments will affect your program, since EPA includes chemical applications at schools and parks under the term. Organophosphate insecticides are currently being reviewed, and the agency is expected to release a preliminary risk assessment of chlorpyrifos this month.

EPA offers on-line public comment periods for its assessments, and it gives considerable weight to response. I urge you to take an interest in the process, and to lend your voice to the debate. The 60-day public comment period for chlorpyrifos should already be underway.

**Steve Berens, Editor**  
(773) 755-4611

## Tip of the Month

### Movable Soccer Goal Safety

by *U.S. Consumer Product Safety Commission*

There are between 225,000 and 500,000 soccer goals in the United States. Many of these are unstable and unsafe because they are either unanchored, or improperly anchored or counterbalanced.



Moveable soccer goals contributed to at least 21 deaths between 1979 and 1994. Between 1989 and 1993, U.S. hospitals treated an estimated 120 injuries that involved falling goals each year.

Most movable soccer goals feature metal construction, and weigh between 150 and 500 pounds. Many of the serious accidents occurred when equipment tipped over onto the victims. In most cases, the goals involved appeared to be homemade constructions of high school shop classes, custodial members, or local welders. These homemade goals often lack important safety features incorporated into professionally manufactured equipment.

#### Design and construction

A correctly designed goal must feature carefully balanced construction. A full-sized goal normally measures 24 feet (7.3 meters) wide and eight feet (2.4 meters) high. Goals are commonly six feet (1.8 meters) deep.

Soccer goal stability depends on several factors. One effective design lengthens the depth of the goal to counterbalance the structure. This strategy

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distributes weight away from the front goal posts, and allows the back of the equipment to carry more of the burden.

Another design option uses lightweight materials for the goal's front posts and crossbar, while using much heavier materials for the rear ground bar and frame members. This type of goal can be designed to fold down when not in use.

All of these options decrease the chance that the goals will fall forward. However, regardless of a goal's construction, all movable soccer goals should be firmly anchored at all times.

## Anchoring guidelines

A properly anchored and counterweighted movable soccer goal is unlikely to tip



over. It's best to secure goals to the ground at the rear ground bar. Keep all of your anchors flush with the ground and clearly visible.

The number and type of anchors you choose will depend on factors such as soil type, soil moisture content, and total goal weight. The following lists several anchoring options.

### • Auger style

This style anchor is helical shaped, and is screwed into the ground. Flanges positioned over the side and rear ground bars secure them to the ground. Recommendations suggest a minimum of two auger-style anchors be used to secure a goal. Depending on manufacturer specifications, unit weight, and soil conditions, more may be required.

### • Semipermanent

Two or more functional components make up this anchor type. The main support requires a permanently secured base that is buried underground. In one type of semipermanent anchor, two tethers connect the underground base to the soccer goal. Another design uses a buried anchor tube with a threaded opening at ground level. Bolts passed through the goal's side and rear ground bars secure the apparatus to the buried anchor tubes.

### • Peg or stake style

Two or four pegs or stakes can also be used to anchor soccer goals; more units should be used for heavy goals. Anchoring pegs/stakes normally measure approximately 10 inches (250 millimeters).

Drive pegs/stakes as far as possible into the ground with a sledge hammer, and angle them whenever possible. Pass the supports through available holes in the side and rear ground bars.

If a peg or stake is not flush with the ground, it should be clearly visible to persons playing near the soccer goal. Stakes with large diameters or textured surfaces provide extra holding capacity.

### • J-hook stake style

Use J-shaped hooks to anchor goals when no pre-drilled holes are available in the ground bars. This support system uses techniques similar to peg/stake-style anchors.

Hammer J-hooks into the ground at angles when possible. The curved portion of the anchors should wrap over the goal bars. Two to four J-hooks per goal are typically recommended. The number of hooks will depend on stake structure, manufacturer specifications, goal weight, and soil conditions. Stakes with large diameters or textured surfaces provide extra holding capacity.

### • Sandbags/counterweights

Sandbags or other counterweights can provide effective anchoring on hard surfaces, such as artificial turf, that can't be penetrated by conventional anchors. The number of support bags or weights necessary varies according to goal size and weight.

### • Net pegs

Tapered, metal net pegs should only be used to secure nets to the ground. They should NOT be used to anchor entire movable soccer goals.

### Goal storage

Most recorded soccer goal injuries do not occur during matches. Most involve unat-

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tended goals. Proper storage when goals are not in use can help prevent these problems.

Here are some suggestions to keep unattended goals safe and secure:

- Remove nets when goals are not in use.
- Place goal frames face to face and secure them at each goal post with chains and locks.
- Chain and lock goals to fixed structures such as permanent fences.
- Lock goals in secure storage rooms after each use.
- Fully disassemble goals for seasonal storage.
- Fold goal faces down and lock them to the base.

### Safety tips

The following tips help further promote soccer goal safety:

- Check goal bars and connections for structural integrity before and after each use. Replace damaged or missing parts immediately.
- Never allow anyone to climb on goal frames or nets.
- Apply safety/warning labels where they will be clearly visible.
- Exercise extreme caution when moving goals. Movable soccer goals should only be moved by authorized and trained personnel.
- Instruct players on safe goal handling, and warn them of potential dangers.
- Use movable soccer goals only on level fields.



## Soccer Organizations

**Federation Internationale De Football Association**  
Hitzigweg 11, 8030  
Zurich, Switzerland  
(41) 1-384-9595

**National Federation of State High School Associations**  
11724 NW Plaza Circle  
Box 20626  
Kansas City, MO 64195  
(816) 464-5400

**National Collegiate Athletic Association**  
6201 College Blvd.  
Overland Park, KS 66211  
(913) 339-1906

*The U.S. Consumer Product Safety Commission is an independent regulatory agency charged with reducing unreasonable risks of injury associated with consumer products. For more information, write: U.S. Consumer Product Safety Commission, Office of Information and Public Affairs, Washington, D.C. 20207.*

### Information

For further information on soccer goal anchors and/or to obtain free soccer goal warning labels, contact:

The Coalition to Promote Soccer Goal Safety  
c/o Soccer Industry Council of America

200 Castlewood Dr.  
North Palm Beach, FL 33408  
(800) 527-7510, (800) 334-4625  
(800) 243-0533, (800) 531-4252

## YOU COULD BE HONORED BY THE PROS!

Why not enter your baseball field in the Beam Clay® Baseball Diamond of the Year Awards contest? You need not be a customer, member, or subscriber; and there is no entry fee. You could be featured in **sportsTURF magazine** and receive an official awards plaque.

The Awards are sponsored by **Beam Clay® sportsTURF magazine**, and the **Sports Turf Managers Assoc.** in recognition of excellence and professionalism in maintaining outstanding, safe, professional quality baseball diamonds. Entries will be judged in three categories: professional diamonds; college diamonds; and school, municipal or park diamonds.

### Send the information below to enter:

1. Age of baseball diamond (year of installation).
2. Geographic location (city and state).
3. Description of maintenance program.
4. Operating budget for baseball diamond.
5. Irrigation. None \_\_\_ Manual \_\_\_ Automatic \_\_\_
6. Total number of maintenance staff for field.
7. Does baseball field have lighting for night games?
8. Number of events on baseball diamond per year.
9. Types and number of events on diamond other than baseball.
10. How many months during the year is the field used?
11. Why do you think this field is one of the best?
12. **IMPORTANT:** Send two copies of entry and two identical sets of color photos.

**Deadline for entries:** Entries must be postmarked no later than October 30. Selection of winners will be made by the Awards Committee of Four Major League Head Groundskeepers.

Mail entries to:  
**Beam Clay Awards**  
Kelsey Park  
Great Meadows, NJ  
07838



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