

will be construction.

For information, contact John Mascaro: (954) 341-3115.

**Wisconsin Chapter:** The Wisconsin Chapter will hold its spring meeting, a ballfield maintenance seminar with Floyd Perry, Apr. 22 in Wausau.

The chapter will participate in the Wisconsin Turfgrass Association's Summer Field Day at the O. J. Noer Facility Aug. 10.

For more information, contact Rich Riggs, R. H. Rettler & Associates, Inc.: (715) 341-2633.

**So-Cal Chapter:** The Southern California Chapter will be hosting its Season Opener event at San Diego's Qualcomm Park Apr. 24 at 2 pm. There will be a stadium tour, a tailgate party, and admission to the San Diego Padres game.

For information, contact the chapter hotline: (888) 578-STMA.

**Colorado Chapter:** CSTMA will hold a baseball seminar May 4 at the Auraria Higher Education Center's Metropolitan State College baseball field, the STMA / BeamClay / *sportsTURF* 1998 College Baseball Diamond of the Year.

Three more educational seminars

are being planned, one each in June, July, and September.

CSTMA's annual golf tournament, the Lawnmower Man Open, will be held in late July, with an afternoon shotgun start.

For information, call the **NEW** CSTMA hotline: (303) 346-8954.

**Iowa Chapter:** ISTMA will hold a workshop May 5 at St. Albert's High School in Council Bluffs. Sessions open at 9 am. The morning will be devoted to baseball and softball; the afternoon to football and soccer.

Sat., Jun. 5, ISTMA will meet from 1-4:30 pm in Hawarden. The meeting will focus on baseball field repair.

A Seminar on Wheels will be held in the Ames area Jun. 23. Sites on the tour include Iowa State University, Ames High School, Reiman Gardens, and an Ames Soccer Complex.

For information, contact Lori Westrum at the Turf Office: (515) 232-8222, or fax: (515) 232-8228.

**North Texas Chapter:** The chapter is planning a field day / golf outing May 20 in Flower Mound, TX. More details will be announced soon.

For information, contact Rene Aspiron, Diamond Pro: (800) 228-2987; or Tom Welch, CSM, Central Garden

and Pet: (800) 788-9581.

**MAFMO Chapter:** The Mid-Atlantic Field Managers Organization will hold a Back to Basics field day 9 am-2:30 pm May 5 at Blair High School in Silver Spring, MD. That evening, the chapter will hold a dinner meeting at 6:00 pm at Fred & Harry's.

For information, call the hotline: (410) 290-5652.

**Nor-Cal Chapter:** The Northern California Chapter has elected its 1999 Board:

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**Dennis Suit**

San Jose State University

*President Elect*

**Dave Patterson**

Sierra Pacific Turf Supply

*Vice President*

**James Moore**

Robert A. Bothman, Inc.

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**Steve Abella**

Delta Bluegrass Company

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The chapter has also appointed **Janet Gift** administrative assistant.

A May Seminar on Wheels tour is being planned. It will include site visits

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to the Oakland Raiders' training camp, UC-Berkley, and Piedmont High School.

For information, contact Janet Gift: (530) 758-4200.

**KAFMO Chapter:** The Keystone Athletic Field Managers Organization will hold a grounds seminar at Hershey Stadium Sat., Jun. 19. Morning educational sessions will include presentations by Bob Hummer of Hummer Turfgrass Systems; John Tshudy, director of buildings and grounds for Hershey Park; and Steve LeGros, superintendent of Hershey Stadium.

To help make this a family day, the chapter has put together a package that includes full-day reduced admission to Hershey Park, and admission to the Hershey Wildcats soccer game.

For information, contact Dan Douglas, Reading Phillies Baseball Club: (610) 375-8469, ext. 212.

**Tennessee Valley Chapter:** TVSTMA will hold a workshop Jun. 23 at the University of Tennessee. For information on this event, contact Bob Campbell: (423) 974-2977, or call the contacts that follow.

For general information, contact Tom McAfee, Nashville Sounds: (615)

242-4371; or Bill Marbet, Southern Athletic Fields, Inc.: (931) 380-0023.

**Mid-South Chapter:** A joint meeting this spring between the Mid-South Chapter and the new TVSTMA Chapter is in the planning stages. The date and a mid-state location will be announced soon.

For information, contact Jim Calhoun: (901) 755-1305, or Robert Bodi: (901) 383-2414.

**Great Lakes Chapter:** GLSTMA has two events in the planning stages: a tentatively planned workshop with the Cleveland Browns (date TBA); and an athletic field day and workshop at Ohio State University Jul. 7.

For information, contact Joe Zelinko: (800) 897-9714, or Boyd Montgomery: (419) 885-1982, or visit the chapter website: <http://members.tripod.com/~glstma>.

**Indiana Chapter:** The chapter has appointed program, membership, finance, and public relations committees. Plans are progressing for three meetings; details will be announced soon.

For information, contact Terry Updike, B & B Fertilizer: (219) 356-8424, or Pat Hickner: (800) 672-4273.

**Michigan Chapter:** For informa-

tion, contact Rick Jurries, West Ottawa Public Schools: (616) 395-2364.

**Minnesota Chapter:** For information, contact Connie Rudolph: (651) 646-1679.

**Midwest Chapter:** For information, call the chapter hotline: (847) 622-3517.

### Chapters on the grow








A new chapter is taking shape in the Kansas City, MO/KS area. For information, contact Trevor Vance: (816) 504-4271, John Cundiff: (816) 525-7600, Bill Tritt: (816) 941-4424, Jody Gill: (913) 681-4121, Gary Custis: (816) 468-6215, or Jay Sutton: (816) 795-8873.

**Arizona Chapter:** For information, contact Bill Murphy, City of Scottsdale Parks & Recreation Department: (602) 312-7954; or Kris Kircher, City of Chandler Parks & Recreation Department: (602) 786-2728.

**Great Plains Chapter:** For information, contact Mark Schimming, City of Wichita: (316) 337-9123.

**Nevada Chapter:** For information, contact Ibsen Dow: (702) 649-1551; or Alan Paulson, Clark County School District: (702) 799-8724.

STMA in Action

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# How much Crown?



by Dr. Dave Minner

**Have questions? Send them to Dave at:  
ISU, Hort. Dept., Ames, IA 50011.**

*How much crown do you recommend for football and soccer fields?*

- Doug Ford

Geneseo, IL

The crown of a field refers to the rise in the center. The slope created by the rise, or crown, helps move water from the playing surface off the sides of the field.

The National Federation of High Schools suggests that the field should rise 0.25 inches per foot from the sideline to the center of the field (1998-99 *Football Rules Book*, Rule 1, Section 2, Article 1). A standard football field should rise 20 inches (1.67 feet) over a distance of approximately 80 feet from the sideline to the field center.

Sometimes the crown is referred to as slope. To calculate percent slope, simply divide feet of rise by feet of run (1.67 ft. / 80 ft. = 0.02 or two-percent slope). The two-percent crown has served as a long-time standard for high school football fields built from native soils.

The crown is especially important on heavier soils. It directs puddles from the surface rather than allowing the water to seep into the soil. Standing water on the surface will eventually saturate the ground and cause soggy playing conditions.

A two-percent crown is seldom noticed from the bleachers, but it's very obvious when you're down on the field. High school players and coaches seem to tolerate crowned

fields, especially if it helps the field from becoming a mud bowl.

I personally think that a 1.5-percent crown is sufficient for surface drainage on soil fields, and this reduces the severity of the crown. There's a clear trend towards building fields with less slope:

- At the college and professional levels, the two-percent crowned field is being phased out in favor of a flatter surface. As players' skill levels increase, they notice small differences in the field that affect their performance. For example quarterbacks don't like to throw down hill when receivers run sideline patterns.

- Synthetic-turf fields are usually crowned at 0.5 percent. The crown of natural-grass fields should be similar and competitive with synthetic fields.

- Rapidly draining sand-based fields have crowns that slope 0.5 to 0.8 percent. Because of the high sand content and rapid internal drainage of sand systems, very little rain runs off the field.

- Field crown can have a very pronounced effect on soccer because of the high degree of ball contact with the field. Soccer players and coaches prefer a flat field with no slope. Sand-based fields with 0.0- to 0.5-percent slope are very acceptable for soccer. Sand-based fields up to 0.8-percent slope have proven to be a nice compromise when both football and soccer are played on the same field.

Not only is it important to construct a proper crown when building a new field, it's important to

maintain the crown throughout the life of the field. I see many fields that were once properly crowned, but with time and traffic they have lost the apex of the crown in the center of the field.

Intense traffic wears away the protective mat of grass. It doesn't allow the center of the field to increase in biomass like other, less-trafficked areas. Once the grass is removed, exposed soil can be removed from the field on players shoes and uniforms, especially during muddy conditions.

Routine topdressing and grass re-establishment of intense-traffic areas will keep the crown properly shaped. Failure to topdress on a regular basis will hasten the costly expense of rebuilding the crown. You can pay a little each year to maintain the crown through topdressing, or you can pay a great deal more to rebuild the crown when it is beyond repair.

If you must rebuild, take the opportunity to place sand-filled French drains down the center of the field and along each set of hash marks.



*David D. Minner, Ph.D., is an associate professor with the Department of Horticulture at Iowa State University. He serves on STMA's Certification Committee. Send your questions to Dave at: ISU, Hort. Dept., Ames, IA 50011; or call: (515) 294-2751, fax: (515) 294-0730, or e-mail: dminner@iastate.edu.*



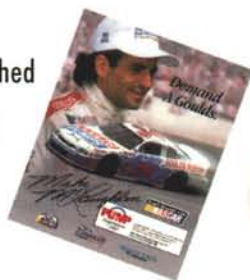
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