THE BULL SHEET, official publication of the MIDWEST ASSOCIATION OF GOLF COURSE SUPERINTENDENTS.

#### **1989 Board of Directors**

| President      | Bruce Williams (Roxane)<br>Bob O'Link G.C.  | Home: 680-1074<br>Office: 432-0088     |
|----------------|---|--|
| Vice-Pres.     | Ray Schmitz (Jan)<br>Flossmoor C.C.   | Home: 815-469-2773<br>Office: 798-2498 |
| Sect'yTreas.   | Timothy Kelly (Linda)<br>Vill. Links of Glen Ellyn  | Home: 858-8174<br>Office: 469-2077     |
| Exec. Sec.     | Penny Meyer (Dave) Office: 820-8181<br>MAGCS (Mailing Address)<br>P. O. Box 248, Eola, IL 60519 |  |
| Board          | Michael Bavier<br>Inverness G.C.  | Home: 382-7654<br>Office: 358-7030     |
|                | Ed Braunsky (Sue)<br>Geneva Golf Club   | Home: 879-0995<br>Office: 232-0627     |
|                | Donald Cross<br>Bryn Mawr C.C.  | Home: 965-3435<br>Office: 677-4112     |
|                | Alan Fierst<br>Oak Park C.C.  | Home: 456-7815<br>Office: 453-7525     |
|                | Joel Purpur (Debbie)<br>River Forest C.C.   | Home: 832-6763<br>Office: 941-1651     |
|                | Dennis Wilson (Pat)<br>Sunset Ridge C.C.  | Home: 441-8387<br>Office: 446-5222     |
| Pres. Emeritus | Dave Meyer (Penny)<br>Prestbury G.C.  | Home: 820-1040<br>Office: 466-4177     |
| Dr. Randy T. F | Kane, Turfgrass Advisor<br>University of Illinois & C   | (708) 954-2753                         |



We are not copyrighted and would like to share our articles with any who would like to use them, but please give the author and "The Bull Sheet" credit.

Editor — Fred D. Opperman, CGCS 1022 Shady Lane Glen Ellyn, IL 60137 Phone (708) 469-3444 or (708) 858-0601

Bull Sheet printed by Ever-Redi Printing, 5100 East Ave., Countryside, IL 60525.

The **Bull Sheet** is published once a month. All articles are required by the 10th of the month to make the next issue. Advertising is sold by the column inch, by the quarter page, half page, and by the full page. All artwork to be finished and in black and white. Circulation is over 600 issues per month.



#### President's Message by Bruce R. Williams, CGCS

The holidays are coming to a close and this gives me a fine opportunity to pass along a few ideas that come to mind during the holiday season. I think we all look forward to the coming of Thanksgiving as it signals the end of the golfing season and time to put our courses to rest for the winter. This is the time of the year when we apply winter fertilizer and fungicide applications. It is also time to put out winter pins and think about covering our greens. Most of all, it is a time to give thanks as the name of the holiday implies.

Let us start with giving thanks to you, the members, for supporting the MAGCS and our activities. Thank you to the suppliers and commercial members for their support. We are fortunate in Chicagoland to have such a professional group of commercial representatives. Thanks to the Board members who volunteer their time and talents to run our association. Thanks to our Executive Secretary, Penny Meyer, for her fine efforts and thanks to Fred Opperman for a super job on the **Bull Sheet** each month. And let us all give thanks to our families for trying to understand the difficulty of our jobs and the stress we are under during the summer months.

The holiday season continued during December with numerous parties around the city hosted by superintendents and businesses. Most of us took time out to attend the North Central Turfgrass Exposition at Pheasant Run. Congratulations to the ITF on a job well done in organizing the NCTE. We are proud to have the MAGCS provide a strong portion of the educational program.

The final holidays of the season were Christmas and New Years. Christmas is a family time and I hope you were able to spend some precious time with your loved ones. Time passes quickly as the little ones grow up so we must take time out of our hectic schedules to be with our families at Christmas. If only for a few days, I hope we were all able to think of our families first and the golf course second.

New Year's Day signals the end of the holiday season. It is at this time of the year that we should all reflect back on the preceding year and set some new goals for the upcoming year. This should be done in both our personal and professional situations. Take a positive outlook on work and life. Strive for improvement. Develop a plan to achieve your goals.

Now that the holidays have drawn to a close, it is time to remind you of a few upcoming events. We hope you attend the GCSAA Seminar being held at Pheasant Run this month. In February we hope to see all of our members in Orlando for the GCSAA Conference and Show. With all of this going on, who could ever get bored! With the holidays behind us, the Board of the MAGCS is working on some exciting programs for 1990. We hope you enjoy and learn from our offerings. Let's work together to make 1990 the best year ever for the MAGCS.

## **Thoughtful Tree Planting**

by Paul Vermeulen, U.S. Golf Assn.

To the novice golfer or average club official, planting a tree on a golf course seems fairly straight-forward. After all, it only takes a short trip to the nursery and 10 minutes to dig a hole. Well, not exactly. An improperly placed tree of the wrong species can seriously interfere with the original intent of the

course architect, or even worse, completely destroy a putting green.

The following are 10 guidelines that one should ponder before attempting to plant a tree. Hopefully, these guidelines will help ensure that a new tree becomes an asset to the entire club rather than a thorn in the superintendents side.

Before reviewing these guidelines, please realize that each may not always apply strictly in all situations. For example, a large tree planted 25 yards away from a putting green on the south side will cause greater problems than a tree planted the same distance on the north side, due to heavy shading.

Guideline No. 1: Make sure to select a planting location so that the mature canopy of the tree will not protrude on the lineof-flight between a tee and a fairway. Trees with protruding limbs dramatically reduce the usable size of a tee.

For example, a tree planted too close to the front right-hand side of a tee will promote concentrated use on the left-hand side of the tee. The result of such concentrated divoting on one side of the tee usually promotes discussion about the superintendents abilities. The solution to large overhanging limbs is usually sympathetic pruning that leaves the tree permanently disfigured. Actually, complete removal of a tree could be the best solution.

Guideline No. 2: To allow for vital air movement and exposure to sunlight, resist the temptation to plant dense groves of trees around greens, tees and fairways. Poor air circulation, especially in areas where greens are located produces soaring temperature and humidity during the summer that in turn promotes harmful disease development. Furthermore, poor air circulation and dense shade during the winter produces cooler soil temperatures that severely retards the growth rate, leaving greens helpless against foot traffic. In situations where poor air circulation and restricted sunlight penetration cause unacceptable turf loss, tree removal is absolutely necessary.

**Guideline No. 3:** Never try to completely fill in rough areas between adjacent fairways with trees for the sake of safety. No matter how many trees you plant to protect neighboring players, the odds are the first high handicapper will find a way through. Once they do, look out! The player automatically feels qualified to join the PGA tour and aims directly into the oncoming players, hoping to hit a fadeback over the trees.

If your intent is to protect golfers in adjacent fairways, then plant groups of trees strategically near the tee. This will prevent errant shots from even having a chance to stray. Leave several openings between adjacent fairways near the landing area so that if someone does stray, they have the opportunity to return to their fairway uninhibited.

**Guideline No. 4:** Never plant large trees closer than 75 feet from a green or tee, because they will become serious competitors for available water and nutrients. Most individuals are under the mistaken impression that tree roots cannot extend outward from the trunk further than the drip line of the tree. In reality, tree roots can extend outward from the trunk approximately one to one and a half times the total height of the tree.

For example, if a tree is 100 feet tall, its roots can extend as far as 100-150 feet. Once tree roots have invaded underneath a green or tee, they sap water and nutrients away due to their overwhelming size. In situations where tree roots are a problem, sever them with a trencher and install a permanent barrier.

Guideline No. 5: Without question, flowering trees add unmistakable beauty to any course. However, due to their tender bark and dwarf stature, they are extremely sensitive to mower damage. This extreme sensitivity makes most flowering trees a poor candidate for use on golf courses unless they can be carefully protected. Augusta National is a good example. The beautiful flowering dogwoods and azaleas have been planted underneath large pine trees where there is never an occasion to operate heavy mowing equipment.

Guideline No. 6: Try to avoid screening out scenic vistas. Scenic vistas include the clubhouse, ocean or mountain views, lakes or other open areas of the course. Once a scenic vista has been lost, it is usually forgotten and consequently may be lost forever.

**Guideline No. 7:** It is often best to avoid using a standardized tree planting as yardage indicators. Problems arise in the future when one of the plantings is lost or damaged.

For example, if palm trees are used on each hole to indicate a distance of 150 yards, it will impossible to replace a dying palm with one of matching size. In addition, a tree planted to the edge of a fairway can severely penalize a golfer.

A better means of indication yardage may be to mark large, landmark trees already present throughout the course with a small wooden or metal plaque. The advantages of marking landmark trees is that they blend in with the course surroundings, they are already present throughout the course and because of their size they can be seen by golfers that stray into adjacent fairways.

Guideline No. 8: When selecting a tree, choose species that match the existing vegetation and have favorable characteristics. Cottonwoods and large fruit trees are not good candidates for golf courses because they are either strong surface rooters or require continuous maintenance.

In addition, try to limit the number of different species as much as possible. A continuous vegetation scheme is often the trademark of many of America's highest ranked courses. For example, the site of this year's U.S. Open is Oak Hill C.C. in Rochester, New York. This particular course has a continuous theme of oak trees from the first tee through the 18th green. Courses that tend to plant a potpourri of tree species are usually unflatteringly referred to as tree zoos or specimen parks.

**Guideline No. 9:** Try to naturalize the appearance of large tree plantings by randomizing the distance between each tree. A good way to develop a randomized tree planting would be to hit several dozen golf balls into a rough area from a distance of 200 yards. Then place a small flag where each ball has landed and selectively remove one flat at a time until there are an appropriate number left.



## We dug into the tall fescue control problem. So now you don't have to.

Introducing LESCO TFC<sup>™</sup> Herbicide. The new, easy way to remove unwanted clumps of tall fescue without digging or spottreating with a non-selective herbicide. LESCO TFC is the first

LESCO TFC is the first product to provide selective spot control of tall fescue in Kentucky bluegrass, bentgrass, fine fescue, bahiagrass and bermudagrass, while allowing desirable grass to fill in. This water dispersible granule offers convenience and accuracy. Order today!

Nationwide • (800) 321-532 In Ohio • (800) 686-7413

Always read and follow

label instructions before using any chemical product.



(Tree Planting cont'd.)

Guideline No. 10: To prevent unnecessary neglect of newly planted trees, never plant more than the maintenance staff can adequately maintain. During the first year of establishment, small trees require extra attention and frequent hand-watering during the summer. If you must purchase trees in large numbers due to cost, it might be best to establish a tree nursery near the maintenance facility where they can be easily cared for. Then, over the next several years, slowly spread them over the course.

**Summary:** Remember that a good tree-planting program on any course starts with a long-range plan. What makes a golf course different from a park or from your front yard is the presence of sensitive putting greens and the integrity of the game.

The agronomic impact of misplaced trees is commonly seen in the form of shade, root competition and poor air circulation. Thoughtful tree planting should not only improve the appearance and playability of your course, but more importantly remove the thorn from your superintendent's side.

### University of Illinois at Urbana-Champaign Off-Campus Credit Courses in Your Area

#### Hort. 221: Plant Propagation

Examines theory and methods employed in propagation of plants emphasizing anatomical, physiological, and ecological principles involved in sexual propagation (seeds) and asexual propagation (division, cuttings, budding, grafting, tissue culture, etc.). Prereq: Plant Biology 100 or consent of instructor.

Instructor: Prof. Martin Meyer

#### Date & Time:

Mondays, 6:30-9:45 p.m., January 22-April 30, 1990. Registration will be at the first class meeting.

Location: Botanic Garden Education Center Lake-Cook Rd. East of Edens, Glencoe, IL

#### Credit, Tuition & Fees:

3 hrs., \$210 plus \$15 instructional support fee. Tuition and fees are subject to change prior to the beginning of class.

#### Hort. 234: Landscape Plants Production

Emphasizes woody ornamental plant production, nursery operation, and nursery business management techniques; compares both traditional and computer-aided management tools; examines industry scope and diversity through nursery visits, presentations by nursery operators, and student-directed interviews/presentations throughout the state. Field trip required.

#### Instructor: Prof. David J. Williams

#### Date & Time:

Tuesdays, 6:30-9:45 p.m., January 16-April 24, 1990. Registration will be at the first class meeting.

#### Credit, Tuition & Fees:

3 hrs., \$210 plus \$15 instructional support fee. Tuition and fees are subject to change prior to the beginning of class.

Location: Room 80, Naperville Central High School 400 W. Aurora, Naperville, IL

**Preregistration:** To pre-enroll for the above courses write to: Mr. Richard Casper, Office of Statewide Programming 300 W. Golf Road, Mt. Prospect, IL 60056 Phone: (708) 255-3320.

# Schroeder's Nursery, Inc.



TREES

**EVERGREENS** 

RICHARD A. SCHROEDER DON VIRGENS CARL DRAVIS

SHRUBS

Specializing in Large Caliper Trees We offer complete installation

#### TELEPHONE: 708-546-9444

23379 W. Route 60 – Grayslake, Illinois 60030 Located on Route 60 between Rt. 12 (VOLO) & Rt. 83 (IVANHOE)



#### Nels J. Johnson, Tree Experts, Inc. SINCE 1930

Nels J. Johnson, Sr. Nels J. Johnson, Jr. - Karl G. Johnson Complete, economical tree service for Private Estates, Parks, Municipalities, Golf Courses, Cemeteries, Schools, Industrial Areas.

All phases of Arboriculture, Diagnosing, Pruning, Treating, Transplanting, Fertilization, Hydraulic and Mist Spraying. Removals, Stump Routing, Municipal Forestry, Chemotherapy for elms, and other trees. • FULLY INSURED •

Graduate -- Licensed Arborists

MAIN OFFICE - 912 Pitner Avenue, Evanston, Illinois 60202 Phones: GReenleaf 5-1877 - GR 5-5255 Hinsdale, Illinois - FA 5-0970



### Tips for Laundering Pesticide-Contaminated Clothing

Clothing worn by people who use pesticides needs special laundering.

Home gardeners may not even realize that the clothes they wear when dusting rose bushes or the vegetable garden need special treatment.

Garments worn when using pesticides should not be put in the family wash, since the chemicals can migrate to other clothes in the same washload.

The following tips are offered by the Cornell Cooperative Extension, Department of Textiles and Clothing, New York State College of Human Ecology.

Clip this article and post it by the washing machine. Prerinse

#### Prerinse

Use one of three methods:

- 1. Hose off garment outdoors.
- 2. Rinse in separate tub or pail.
- 3. Agitate in automatic washer.

#### Pre-treat (heavily contaminated garments)

Use heavy-duty liquid.

#### Washer Load

Wash garments separately from family wash.

Wash garments contaminated with the same pesticide together.

#### Load Size

Wash only a few garments at once.

#### Water Level

Use full water level.

#### Water Temperature

Use hot water, 140°F or higher.

#### Wash Cycle

Use normal 12 minute wash cycle.

#### Laundry Detergent

Use a heavy-duty detergent.

Use amount recommended on package or more for heavy soil/hard water.

#### Rinse

Use two full rinses.

Line Dry to avoid contaminating dryer.

#### **Clean Washer**

Run complete, but empty, cycle. Use hot water and detergent. Other Tips

Water waterproof gloves when handling highly contaminated clothing. Replace gloves periodically.

Wear a disposable overall over work clothes.

Remove contaminated clothing before entering enclosed tractor cabs.

Removing contaminated clothing outdoors or in an entry. If a granular pesticide was used, shake clothing outdoors. Empty pockets and cuffs.

Save clothing worn while handling pesticides for that use only. Keep separate from other clothing before and during laundering.

Wash contaminated clothing after each use. When applying pesticides daily, wash clothing daily.

Re-wash contaminated garments two or three times before reuse, for more complete pesticide removal.

Bury shoes and garments that were saturated with highly toxic/concentrated pesticides.



### EngineMasters, Inc. INDUSTRIAL ENGINE SALES & SERVICE

1087 Entry Drive Bensenville, IL 60106

Located ½ mile West of York Road and 2 short blocks North of Grand Avenue

(708) 860-0610

#### AUTHORIZED SERVICE DEALER FOR:

| - WISCONSIN - |             |  |
|---------------|-------------|--|
| - WISCONS     | SIN ROBIN - |  |
| BRIGGS &      | STRATTON -  |  |

- KOHLER -

- ONAN -
- CONTINENTAL -

ENGINEMASTERS, INC. OFFERS:

#### SERVICE

- \* Air & Water Cooled Engines
- \* Construction Equipment
- \* Generator Sets & Pumps
- \* Lawn & Garden Equipment
- \* Starting Units
- \* Sweepers/Scrubbers
- ★ Lift Truck Engines ★ Field Service
- \* Magneto Rebuilding

-6-

FACTORY TRAINED PERSONNEL

- PINCOR -

- GOODALL -

- MOTORCRAFT -

- PRESTOLITE -

- CUSHMAN -

- FORD INDUSTRIAL -

#### MACHINE SHOP SERVICE

- \* Valve & Seat Grinding
- ★ Engine Cylinder Boring ★ Crankshaft Grinding
- \* Complete Engine Rebuilding
- PARTS
- \* Complete Line of Original
  - Replacement Parts (in Stock)
- ★ Prompt Attention to All Orders ★ Immediate U.P.S. Service
- \* Pickup & Delivery Available







## **GOLF COURSE CONSTRUCTION** TECHNIQUES AND MANAGEMENT

"Everyone asked questions and got answers." "Got many ideas that could be implemented on my course." ... the best I've ever attended ... keved in on what it's all about.

This two-day educational seminar at Pheasant Run Resort in St. Charles will feature presentations and discussions on the superintendent's responsibilities in master planning and project administration. New construction bonds and bidding, requests for proposals, the sequence of phasing, budgeting and scheduling, insurance requirements, concept plans, working drawings, selection of an architect and contractor and the bid process will be covered. In addition, methods of green, tee, bunker, lakes and ponds, and cart path construction will be discussed. Attendees will participate in practical exercises under the instructors' supervision and practice "selling" a project. Instructors are Dr. Michael J. Hurdzan of Hurdzan Design Group and Mr. Stephen Harrell, Wadsworth Golf Construction Company of the Southwest.

Included in the registration fee are luncheons on both days of the seminar and take-home reference materials and tools. Passing the examination at the conclusion of the seminar will earn participants 1.4 Continuing Education Units (CEUs) and a certificate of achievement from GCSAA. Seminar registrants must make their own arrangements for overnight accommodations. A reservation form will be furnished upon receipt of your registration, identifying you as a seminar participant, eligible for the special \$65/ night double or single rate if you make your reservation by December 10, 1989.

REGISTER NOW Complete the form enclosed, include your check or credit card information and return to: GCSAA Regional Seminars 1617 St. Andrews Drive



TELEPHONE REGISTRATIONS BY CREDIT CARD ARE WELCOME CALL 800/472-7878 or 913/841-2240, FAX: 913/841-2407.



\* Stability - Longer wheelbase with low center of gravity.

MARTIN IMPLEMENT SALES, INC. 16400 S. 104th Ave. Orland Park, IL 60462 (708) 349-8430



## Sulfur and the Black Layer

by Lee Berndt, Joe Vargas, Jr. & Brad Melvin Dept. of Botany and Plant Pathology & the Pesticide Research Center, Michigan State Univ.

Black layer forms in turfgrass soils when metal sulfides precipitate from soil solution and deposit on soil particles and organic matter. Iron sulfide (FeS) is probably the most common metal sulfide in black layer, but it is certain that other forms, such as manganese sulfide, exist.

Metal sulfides form from a bacterial respiratory process known as dissimilatory sulfate or sulfur reduction. This is essentially bacterial respiration in the absence of oxygen. In sulfate reduction, electrons from food burned for energy by the bacteria are passed to sulfur instead of oxygen, forming hydrogen sulfide. Hydrogen sulfide is very poisonous and also very reactive with metals such as iron. Thus, if hydrogen sulfide is produced and iron is present, metal sulfides will be formed. More importantly, if hydrogen sulfide is produced the potential for the decline which frequently accompanies black layer increases. This is because hydrogen sulfide is a respiratory toxin which blocks electron transport.

Hydrogen sulfide is formed only in the absence of oxygen. Thus, conditions which favor oxygen depletion also favor sulfide formation and black layer development. These conditions include waterlogging, high rates of respiration from microorganisms, compaction, and addition of compounds such as elemental sulfur. The chemistry of sulfur is such that its most stable state is sulfate. In order for sulfur to become sulfate it must acquire 4 oxygen atoms for each sulfur atom. When this occurs in turf soils, it happens at the expense of aerobic micro-organisms and turf plants.

Management of black layer lies in prevention. There are several things you can do to prevent the creation of conditions necessary for sulfide production hence black layer formation. Control the amount of irrigation applied to your soil. The easiest way to achieve conditions in soil where oxygen is deficient is by adding an excess of water. There may be nothing you can do about torrential rain but you can control your irrigation regime. Also, control the amount of sulfur applied to your turf. Pay attention to the sulfur content of micro-nutrient solutions, fertilizers, and fungicides. If you must add sulfur add sulfate and not sulfur. Less black layer forms from sulfate sulfur than from mineral sulfur. It is also better to add nutrients such as iron and phosphorus than to attempt to make them more available by lowering soil pH. Why risk black layering by adding large amounts of sulfur when adding these nutrients is so easy?

If black layer has already become a problem do everything you can do to get oxygen into the soil. Core aerification is an effective way to do this. Remove plugs from the turf, and leave core holes open and unfilled. Do not core, however, when your green is overly wet. You will do more damage than good. Allow your soil to dry out as much as possible. This will encourage oxygen diffusion into soil. Syringing is mandatory for maximum black layer control. Adding potassium nitrate or calcium nitrate will also help. These compounds are good oxidizers will allow aerobic respiration in soil using nitrate as an electron acceptor. Nitrate in effect prevents sulfate reduction in environments where oxygen is lacking. The state highway department routinely adds nitrate to stagnant water in roadway ditches to stop the smell (from sulfides) and clear up the scum. Also, if black layering has already become a problem do not add organic N sources. Organic matter will intensify sulfide formation and "feed" black layer. Do, however, spoonfeed nutrients, including P and K, to the turf.



Build your Pythium control program on a firm foundation. Chipco<sup>®</sup> Aliette<sup>®</sup>



919/549-2000

## **Turfgrass Nutrition Strategies**

#### by Dr. James Beard Texas A & M University

Turf and lawngrass nutrition can be complicated. In order to adequately meet plant needs, a combination of different strategies may be employed. Dr. Jim Beard has devoted considerable time and effort to research in this area. Here he presents the following for your consideration.

- There are 9 major effects of nitrogen on turfgrasses:
  - 1 shoot growth;
  - 2 root growth;
  - 3 shoot density;
  - 4 color of foliage;
  - 5 disease proneness;
  - 6 heat, cold and drought hardiness;
  - 7 wear tolerance:
  - 8 recuperative potential and rate;
  - 9 composition of the turfgrass community.

· Nitrogen rate of application should be limited to no more than one pound of nitrogen per 1000 square feet of water soluble types.

• The first response of nitrogen is on color of foliage. There are many gradations of green. The darkest green turf is not necessarily the most healthy.

· Nitrogen has an effect on disease. The application rate, the nitrogen carrier and application timing can either increase or decrease disease incidence.

· Under low nitrogen turf management, grasses are more prone to dollar spot, red thread and rust, for example.

· Use of nitrogen carrier Oxamid has resulted in no brown patch on St. Augustin grass.

• Timing of nitrogen applications in the late fall have produced more snow mold.

· Look for nitrogen deficiency first by checking the tips of older leaves (the lower and outer leaves). When they are pale green, this is the first indication. The yellow of these leaves will progress toward the base as deficiency intensifies.

 Nitrogen deficiency is encouraged by removal of clippings. As much as 2 pounds of nitrogen per 1000 square feet may be lost in a year.

· Coarse textured soils that are low in organic matter are prone to production of nitrogen deficient turf.

· Where there is intensive rainfall, nitrogen leaches away and the turf becomes nitrogen deficient.

• Phosphorus is not readily leached from the soil. At soil pH levels from 6 to 7, it is most available. In addition, turfgrass requirements for phosphorus are low.

· Phosphorus has 4 major effects on turfgrasses:

- 1 aids in establishment;
- 2 promotes rooting;
- 3 causes maturation of plants;
- 4 enhances seed production.

· When phosphorus is deficient, the foliage becomes darker green - a dull bluegreen. Older leaves exhibit this coloration first. Only a little phosphorus is required to correct this.

· Potassium is a good turf restorer. It affects rooting, drought, heat and cold hardiness, wear tolerance and disease proneness.

• With adequate potassium, there may be 1/3 more roots. More roots are observed under conditions of moisture stress.

(cont'd. page 14)

## PRESSURE

WASHERS



# NEW AND USED

FREE

## DEMO

- SALES
- PARTS
- SERVICE

- CHEMICALS

## CALL TOLL FREE 1-800-666-3900



25 So. Park Street Roselle, Illinois 60172 Phone (708) 893-0777