You've probably never seen red grass—but there are times when the color of your turf doesn't quite come up to your own high standards. IBDU™ can color that turf green.

IBDU is a different slow release nitrogen that can be applied at higher rates and feeds more evenly than conventional slow release fertilizers. Because it's released by water at low soil temperatures, IBDU feeds sooner in the spring and feeds longer in the fall.

Don't take our word for it. Send in the coupon above—and we'll send you enough IBDU to prove it. IBDU—it's a shade better.
most distant from urban or industrial locations.

The sulfur content of some common turfgrass fertilizers are summarized in the table. Where the level of available sulfur in the soil is only slightly lowered, the deficiency can frequently be corrected by the regular use of such fertilizer carriers as ammonium sulfate, potassium sulfate, ordinary superphosphate or potassium magnesium sulfate.

Situations may also occur where the sulfur deficiency is more severe. In these cases, materials such as elemental sulfur or gypsum may be used. The elemental form of sulfur normally contains from 85 to 99 per cent sulfur. The rate of sulfur release for plant absorption is dependent on soil microorganisms to oxidize and transform the sulfur into sulfuric acid. This usually requires 10 to 15 days. This process is most rapid if the elemental sulfur is incorporated into the soil prior to turfgrass establishment. Because elemental sulfur has a high foliar burn potential, it is necessary to water it in immediately after application if applied to an established turf.

Gypsum (CaSO₄ x 2H₂O) is also a source of sulfur that decomposes relatively slowly in the soil. The water solubility is low and thus it is most effective, in terms of a sulfur response, if it is incorporated into the soil. Where a visual foliar sulfur deficiency exists, which must be corrected immediately, it would be preferable to use one of the more readily available, water soluble sulfur sources in the table.

The obvious question to the reader is “do I have a sulfur deficiency?” Just because there have been scattered reports of sulfur deficiencies on turfgrasses around the country does not mean that it is a widespread occurrence at this time, which necessitates an immediate application of sulfur. However, the golf course superintendent should recognize that the potential for the development of a sulfur deficiency is greater under the current turfgrass cultural practices than in the past. He should be able to recognize the sulfur deficiency symptoms. If adequate levels of both iron and nitrogen have been applied, but the turfgrass response has been inadequate, assuming the soil temperature and moisture levels for growth are adequate, then the possibility of a sulfur deficiency does exist. If this situation occurs, one should first apply sulfur to a small area leaving an adjacent, untreated plot to see if there is any visual response in terms of greener color and an improved shoot growth rate and density. If a positive response occurs and similar responses could be anticipated on the remainder of the turfgrass area, then one may conclude that a sulfur deficiency does exist and steps should be taken to correct the problem.

### Approximate Sulfur Content of Eight Fertilizer Carriers

<table>
<thead>
<tr>
<th>Sulfur carrier</th>
<th>Approximate sulfur content, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur, elemental</td>
<td>99</td>
</tr>
<tr>
<td>Ammonium sulfate</td>
<td>24</td>
</tr>
<tr>
<td>Ferrous sulfate</td>
<td>18.8</td>
</tr>
<tr>
<td>Gypsum</td>
<td>18.6</td>
</tr>
<tr>
<td>Potassium magnesium sulfate</td>
<td>18</td>
</tr>
<tr>
<td>Potassium sulfate</td>
<td>17.6</td>
</tr>
<tr>
<td>Ferrous ammonium sulfate</td>
<td>16</td>
</tr>
<tr>
<td>Superphosphate, ordinary</td>
<td>11.4</td>
</tr>
</tbody>
</table>

**The 3-minute Greens Sprayer**

In 3 minutes flat, it covers a green evenly and completely — without leaving a trace. With a hand gun, the same job would require at least 12 minutes. The Myers TurfLine Sprayer’s 15’ boom not only saves time and labor but provides more even distribution with less pesticide waste than any other spray method now on the market. And its smooth, gentle Terra Tires make less of an impression than a single golfer with spiked shoes. Adjustable fast hitch attaches to any utility cart or lawn or turf tractor. Why don’t you see for yourself what we’re talking about. Call us...we’ll be glad to arrange a demonstration for you.

**Myers Turfline Sprayer TL10ETMG**
The Golf Car of 1975 NOW!

Why is it a 4-Wheeler?
A leading insurance authority predicts an end to the 3-wheel golf car by 1975. The 4-wheel CAROCHE outperforms a 3-wheeler, with greater safety and stability. Lighter than all 3-wheelers, it costs about the same. And its sturdy aluminum frame and fiberglass body will never rust, corrode or need painting.

Why is it electric?
Congress has set 1975 as the deadline for eliminating harmful exhaust from cars. The electric CAROCHE will go 36–54 holes on hilly courses, without the pollution, smoke, noise, odor or fire hazard of gas cars. In addition, independent studies have proven electric vehicles cost considerably less to operate and maintain than those powered by gasoline engines.

Why is CAROCHE ahead of its time?
When CAROCHE was introduced in 1970, it caught the golf car industry by surprise. For instance, it was the first golf car to employ both automotive type hydraulic wheel brakes and a mechanical braking system on both rear wheels. It was the only golf car available with supplementary bag racks—easily attached or detached at rental point—enabling it to carry either three or four bags. Its combination of light weight, compact size and easy serviceability made it an instant winner with fleet owners. And how do you make the best even better?

That's the story for CAROCHE in 1972

Why don't you at least ask for a demonstration?
Many golf cars will have obsoleted themselves by 1975. CAROCHE may be as much as a decade ahead of its time. Write or call today for a free demonstration of the golf car of the future—CAROCHE.

The Best DRIVE You'll Ever Make
The Best MAKE You'll Ever Drive

We'd like a CAROCHE demonstration.
NAME
CLUB
ADDRESS
CITY COUNTY
STATE ZIP

Limited Number of Dealerships Available. Write for Details
SAFETY & HEALTH ACT:
ARE YOU LIVING UP TO THE LAW?
The Occupational Safety and Health Act has been causing confusion among golf clubs. Penalties have been handed out, yet no clear-cut guidelines have been offered. GOLFDOM points out those safety requirements that must be followed to avoid penalties.

by KEN EMERSON and JACK JANETATOS

Golf clubs, as well as all other employers engaging in a business affecting commerce, are covered by the Occupational Safety and Health Act of 1970 (Williams-Steiger Act—Public Law 91-596). Employers will find that the law is far ranging and generally lives up to its reputation as "the toughest piece of legislation business has ever had to cope with."

The declared congressional purpose of the act is, "to assure, so far as possible, every working man and woman in the Nation safe and healthful working conditions . . . ."

The provisions of the law apply in all 50 states, the District of Columbia, all territories and the Canal Zone. It is safe to assume that every golf and country club is covered. In the year since its formation, the Occupational Safety and Health Administration (OSHA) has conducted more than 20,000 inspections and has issued over 16,000 citations to employers for violations, issued 5,536 citations and assessed proposed penalties totaling $512,067. (Of the businesses inspected to date, only 23 per cent have been found to be in full compliance with standards.)

Penalties are assessed based on "gravity of violation" factors and may range from no penalty for a de minimus violation to $1,000 for a violation that demonstrates a blatant disregard for safety. In addition, fines of up to $1,000 per day per violation may be assessed for infractions not corrected within a specified time period.

OSHA has also issued a list of standard penalties that will be assessed when certain violations are found by compliance officers. The penalties are not subject to reduction. These are 1) failure to post the official OSHA poster ($50); 2) failure to post citation received at the worksite ($500); 3) failure to post OSHA Form 102, Summary ($100); 4) failure to report fatality or incident in which five or more employees are hospitalized ($200); 5) failure to maintain OSHA Form 100 Log or Form 101 ($100), and 6) failure to compile OSHA Form 102 ($100).

Companies found in violation of OSHA standards can face severe penalties when they fail to correct the conditions cited by the OSHA inspector.

SETTING STANDARDS

Generally, job safety and health standards consist of rules that avoid hazards that have been proven by research and experience to be dangerous to personal health and safety. Under the law, job safety standards will be set by the Secretary of Labor, who has until April 28, 1973, to promulgate them. The standards will be enforced by a separate, quasi-judicial three-man Occupational Safety and Health Review Commission. Research and related functions are vested in the Secretary of Health, Education and Welfare.

INTERIM STANDARDS

Although the Secretary of Labor has until 1973 to develop permanent standards, interim standards have already been promulgated and went into effect last year. These are termed "National Consensus" standards by OSHA and include those prescribed by the Walsh-Healey Act, the U.S. Public Health Service Sanitation Manual's Model Ordinance and Code, the National Fire Protection Assn. Standard No. 101—Life Safety Code, other NFPA and American National Standards Institute (ANSI) and certain recommendations of the National Safety Council pertaining to food and beverage, meat and leather industries and other trades and services. The act also contains provisions for standards which may require:

"That no employee dealing with toxic materials or harmful physical agents will suffer material impairment of health or functional capacity, even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life."

"Development and prescription of labels or other appropriate forms of warning so that employees are made aware of all hazards to which they are exposed."

"Prescription of suitable protective equipment."

"Monitoring or measuring employee exposure to hazards at such locations and intervals and in such manner as may be necessary for the protection of employees."

"Prescription of the type and frequency of medical examinations or other tests for employees exposed to health hazards. At the request of an employee, the examination or test results shall be furnished to his physician."

The Secretary of Labor may revise, modify or revoke existing standards as well as promulgate new ones. The act provides for the establishment of emergency, temporary standards, effective immediately upon publication in the Federal Register, where it is found that employees are exposed to grave danger.

The Secretary of Labor is also authorized to grant temporary variances from standards to give the employer enough time to come into compliance if he can show a need for an extension and has a protective plan of action. Many have learned, however, that these tempo
Osha continued

dary variances are hard to get; expense or hardship will not be enough. The employer must show that it is nearly impossible to comply.

record keeping

In the words of the act, "Each employer shall make, keep, and preserve, and make available to the Secretary (of Labor), or the Secretary of HEW, such records regarding his activities relating to this Act as the Secretary, in cooperation with the Secretary of HEW, may prescribe by regulation as necessary or appropriate for the enforcement of this Act or for developing information regarding the cause and prevention of occupational accidents and illnesses. In order to carry out the provisions of this paragraph such regulations may include provisions requiring employers to conduct inspection."

Records of all work-related deaths, injuries and illnesses must be maintained. Minor injuries requiring only first-aid treatment need not be recorded, but a record must be made if the injuries involved medical treatment, loss of consciousness, restriction of work or motion or transfer to another job.

"First aid" is described as one-time treatment and any follow-up examination of minor scratches, cuts or burns. "Medical treatment" includes treatment by a physician or registered professional person.

Employers can also be required to maintain accurate records of employee exposure to potentially toxic materials or harmful physical agents. Golf course superintendents, club managers or kitchen supervisors and swimming pool directors should take careful note of this requirement. The records required of employers include: 1) a diary or log of all reportable injuries and illnesses; 2) an annual review of all reportable deaths, injuries and illnesses, and 3) a statistical report to the Secretary of Labor of all work injuries and illnesses required to be kept.

Required records should be kept at the location from which employees are paid or at their base of operations.

A special report must also be sent to the nearest OSHA office if any illness or injury results in the death of one or more employees or the hospitalization of five or more employees.

Records must be kept for five years. Entries in diaries or logs must be initialed by the manager or employee who is responsible for the information.

Inspections

In enforcing the standards, Labor Department safety inspectors may enter any premise "without delay" and, generally, with no advance notice. Their inspections normally will be made during regular working hours. They will inspect the premises and all pertinent conditions, structures, machines, apparatus, devices, equipment and materials during their actual use. They will also question privately any employer, owner, operator, agent or employee.

The act permits the employer and a representative authorized by his employees to accompany the inspector during the physical inspection of any work place for the purposes of aiding the inspection.

Sites will be selected for inspection on the following priorities: 1) catastrophe and/or fatality; 2) complaints; 3) target industries (longshoring, wood products, roofing and sheet metal, meat processing and mobile homes and transportation equipment), and 4) general inspection.

Although the inspections are primarily to aid the enforcement of standards issued under the act, the inspector himself does not enforce these rules; he simply observes and reports on the employer's failure to do so and recommends citations and proposes penalties.

When the inspector first comes on the premises he will verify that the

OSHA REGIONAL OFFICES

bama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee); Suite 587, 1375 Peachtree St. N.E., Atlanta, Ga. 30309; (404) 526-3573.

region v: Chicago (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin); Room 1201, 300 W. Wacker Dr., Chicago, Ill. 60606; (312) 353-4716.

region vi: Dallas (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Texaco Building, 1512 Commerce St., Dallas, Tex. 75201; (214) 749-2477.

region vii: Kansas City (Iowa, Kansas, Missouri, Nebraska); Waltower Building, Room 300, 823 Walnut St., Kansas City, Mo. 64106; (816) 374-5249.

region viii: Denver (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming); Denver Federal Center, Federal Building, Room 15010, 1961 Stout St., Denver, Colo. 80202; (303) 837-3883.

region ix: San Francisco (Arizona, California, Hawaii, Nevada); 10353 Federal Building, 450 Golden Gate Ave., San Francisco, Calif. 94102; (415) 556-0584.

region x: Seattle (Alaska, Idaho, Oregon, Washington); 1808 Smith Tower Building, 506 Second Ave., Seattle, Wash. 98104; (206) 442-5930.

region i: Boston (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont); John F. Kennedy Federal Building, Government Center, Room E 308, Boston, Mass. 02203; (617) 233-6712.

region ii: New York (New Jersey, New York); Room 3445, 1515 Broadway, New York, N.Y. 10036; (212) 971-5941.


region iv: Atlanta (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee); Suite 587, 1375 Peachtree St. N.E., Atlanta, Ga. 30309; (404) 526-3573.

region v: Chicago (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin); Room 1201, 300 W. Wacker Dr., Chicago, Ill. 60606; (312) 353-4716.

region vi: Dallas (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Texaco Building, 1512 Commerce St., Dallas, Tex. 75201; (214) 749-2477.

region vii: Kansas City (Iowa, Kansas, Missouri, Nebraska); Waltower Building, Room 300, 823 Walnut St., Kansas City, Mo. 64106; (816) 374-5249.

region viii: Denver (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming); Denver Federal Center, Federal Building, Room 15010, 1961 Stout St., Denver, Colo. 80202; (303) 837-3883.

region ix: San Francisco (Arizona, California, Hawaii, Nevada); 10353 Federal Building, 450 Golden Gate Ave., San Francisco, Calif. 94102; (415) 556-0584.

region x: Seattle (Alaska, Idaho, Oregon, Washington); 1808 Smith Tower Building, 506 Second Ave., Seattle, Wash. 98104; (206) 442-5930.
Wherever golf is played...

Par Aide TeeAccessory Groups available in three models. The Master—The Deluxe Single—The Twin. Select the particular model best suited for each tee. Ballwasher brush assembly and agitator are interchangeable. Unitized interior can be easily removed for servicing.

FOR COMPLETE LINE OF PAR AIDE GREENS AND TEES EQUIPMENT—WRITE FOR CATALOG

PAR AIDE PRODUCTS COMPANY
296 NORTH PASCAL STREET • ST. PAUL, MINN 55104
Employers risk a $50 fine if they do not display this OSHA poster.

SAFETY AND HEALTH PROTECTION ON THE JOB

The Williams-Steiger Occupational Safety and Health Act of 1970 provides job safety and health protection for workers. The purpose of the Federal law is to assure safe and healthful working conditions throughout the Nation.

The U.S. Department of Labor has primary responsibility for administering the Act. The Department issues job safety and health standards, and employers and employees are required to comply with these standards.

BY LAW: SAFETY ON THE JOB IS EVERYBODY'S RESPONSIBILITY!

EMPLOYERS: The Williams-Steiger Act requires that each employer furnish his employees a place of employment free from recognized hazards that might cause serious injury or death; and the Act further requires that employers comply with the specific safety and health standards issued by the Department of Labor.

EMPLOYEES: The Williams-Steiger Act also requires that each employee comply with safety and health standards, rules, regulations, and orders issued under the Act and applicable to his conduct.

COMPLIANCE WITH SAFETY AND HEALTH REQUIREMENTS

To ensure compliance with safety and health requirements, the U.S. Department of Labor conducts periodic job-site inspections. The inspections are conducted by trained safety and health compliance officers. The law requires that an authorized representative of the employer and a representative of the workers be given an opportunity to accompany the inspector for the purpose of aiding the inspection. Workers also have the right to notify the Department of Labor and request an inspection if they believe that unsafe and unhealthful conditions exist at their worksite. In addition, employees have the right to bring unsafe conditions to the attention of the safety and health compliance officer making the inspection. If upon inspection the Department of Labor believes that the Act has been violated, a citation of violation and a proposed penalty is issued to the employer.

Citations of violation issued by the Department of Labor must be prominently displayed at or near the place of violation.

The Act provides for mandatory penalties of up to $1,000 for each serious violation and for optional penalties of up to $1,000 for each non-serious violation. Penalties of up to $1,000 are required for each day during which an employer fails to correct a violation within the period set in the citation. Also, any employer who willfully or repeatedly violates the Act is to be assessed civil penalties of not more than $10,000 for each violation.

Criminal penalties are also provided for in the Act. Any willful violation resulting in death of an employee, upon conviction, is punishable by a fine of not more than $10,000 or by imprisonment for not more than six months, or by both. Conviction of an employer after a first conviction doubles these maximum penalties.

The Act provides that employees may not be discharged or discriminated against in any way for filing safety and health complaints or otherwise exercising their rights under the Act.

For assistance and information, including copies of the Act and of specific safety and health standards, contact the employer or the nearest office of the Department of Labor.

Although later articles will specify, by area of the club, what regulations will apply and where the most serious hazards may be found, it is important to note that inspectors will look for the following violations in all parts of the club.

Employee health and comfort.
1) lack of adequate toilet facilities for each sex;
2) unsanitary, poorly illuminated dressing rooms;
3) lack of covered receptacles in toilet room used by women;
4) lack of wooden or plastic toilet seat;
5) failure to provide a restroom whenever 10 or more women are employed;
6) lack of adequate hand washing facilities with proper paper or cloth towels and soap;
7) poor housekeeping.

Signs. Failure to post signs warning of dangers or calling attention to safety instructions.

Medical and first-aid equipment.
1) lack of first-aid kits or incomplete kits;
2) lack of proper or approved first-aid kits;
3) lack of a first-aid attendant;
4) In the absence of a formal infirmary on the premises or in the vicinity of the establishment each business should have a person or persons adequately trained to render first aid.

Fire equipment.
1) untested fire extinguishers;
2) uninspected fire extinguishers or inspections that have lapsed;
3) empty fire extinguishers.

Mechanical equipment.
1) unguarded fans;
2) unguarded cutting equipment.

Floors.
1) unsafe and slippery floors;
2) floors with uncovered or unprotected holes;
3) floors with unnecessary protrusions and projections.

Aisles. Passageways not kept clear.

Stairways. No handrails.

Ladders.
1) broken ladders not tagged "dangerous for use;"
2) ladders without safety feet.

Electrical.
1) electrical system not grounded;
2) ungrounded electrical equipment. (Office machines have been cited as unsafe for failing to have a
The only work car as good as our golf car...Harley-Davidson.

And you know how good that is. You see more and more Harley-Davidson golf cars on America's top courses. We build Utilicars with the same care, the same idea that only "perfect" will do. The same way we've been putting power on wheels for over 67 years. That's why they're such hardworking, long-lasting cars. So economical to own and operate. And why they're so widely accepted for industrial uses. Choose from six body styles, cabs and other options to match your jobs. Choose gasoline power with simple, reliable automatic transmission plus instant ignition starting that ends wasteful idling. Get a demonstration today from your Harley-Davidson dealer. . . the place to go for fast, dependable service, too. And be sure to look closely at our brand new high strength industrial bumper (not shown). It's tough. Or write: Manager, Commercial Car Division, AMF HARLEY-DAVIDSON, 3700 West Juneau Avenue, Milwaukee, Wisconsin 53201.
Announcing the new Wilson
Your members' chances for straight,

New Wilson 1200 woods:
Square hits on more shots.
The woods your members are playing now probably have heads with the center of gravity behind the shaft. Which is the way most woods are made. (Fig. 1)

When golfers swing those clubs, torque is produced in the shaft. This often causes the club face to twist open, and then closed, in the down-swing...and to slide through the ball at impact. So it's difficult to hit the ball squarely time after time. (Fig. 2)

But new WILSON 1200 woods have heads with the center of gravity on-line with the shaft. (Fig. 3) The result of removing the usual back-weight and inserting a tungsten alloy Fore-Weight immediately behind the impact area, deep in the Epoloc face. This scientific fore-weighting reduces the tendency of the club face to open, close or even slide through the ball. The result: a better chance for square impact. So the golfer gets better control and greater distance. (Fig. 4)

You can show how this works by placing a Wilson 1200 club and an ordinary club on a table. The face of the Wilson 1200 club hangs straight down—or square. But the face of the ordinary club does not hang square. Because the weight is in the back part of the head.

New Wilson 1200 woods also have an exclusive Counter-Torque shaft. The lower section of the Counter-Torque shaft is firmer than the lower section in an ordinary shaft. (Fig. 5)

Together, the fore-weighted head and the Counter-Torque shaft help keep the club face square at that critical moment when it hits the ball.

A Wilson 1200 club face that hits the ball squarely means a straight shot. Which means a long shot. Shot after shot. After shot.

New Wilson 1200 irons:
More accuracy on more shots.
Most golfers don't consistently hit the ball on the sweet spot. Some irons attempt to compensate for off-center hits by enlarging the sweet spot.

![Figures 1 to 5 showing the new Wilson 1200 woods and irons features.](image-url)