

The Metrics Are Coming!

The proposed conversion to the metric system as a standard of measurement will affect everyone, including golf professionals, club managers and superintendents. Mastery of the system is not beyond most people and it is a precise and constant system

By Fred V. Grau

In the months and years to come there will be many heated discussions, both pro and con, regarding the proposed conversion to the metric system in the United States. The proposal, made in July by the Commerce Department, asked Congress to create a "central coordinating body" to guide the nation through a 10-year conversion to the metric system. America is the last major industrial country in the world to cling to the archaic "inch-pound" English system. The exception is our decimal monetary system, which is based on 10s and is very workable.

Metric refers to the meter, which is one ten-millionth of the distance along a meridian from the north pole to the equator. A meter is rational, precise and constant. (The French converted to this system at the time of the French Revolution.)

The English system is based on the inch as a unit of measure. How did the inch come into being? Someone laid three barleycorns end to end and called it an "inch." One wonders if that had been a good year for barleycorns and if the barley grains were plump.

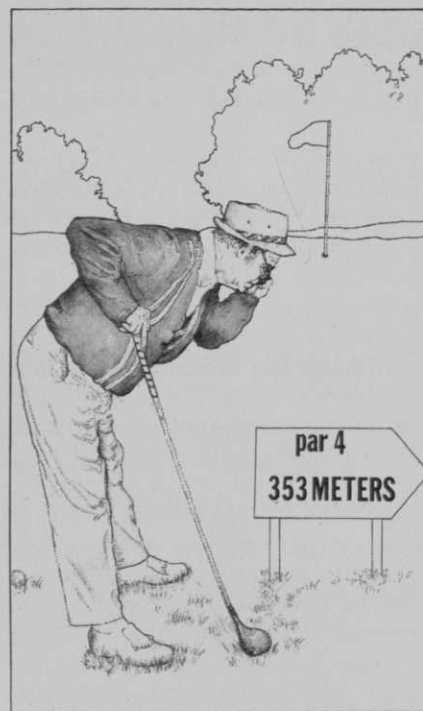
Metrics have been with us, if only peripherally, for a long time. The push is on, however, for a widespread conversion to this system.

In 1821 the Secretary of State, John Quincy Adams, reported on the desirability of converting the United States to the metric system. In 1866 the United States legalized metrics which, since 1893, has been used to calibrate the "inch-pound" system. About 1955 the pharmaceutical industry switched from grains to grams. The film industry, automobile in-

dustry and other specialized industries more and more use metric units of measurement. The American Society of Agronomy and the Soil Science of America accept no technical papers unless measurements are in metric terms. Turfgrass papers report height of cut in *cm* (centimeters) and weights in grams and kilos (kilograms). The National Aeronautics and Space Administration officials report depths below the moon's surface in centimeters and kilometers. A dual roll of paper towels that I bought recently had information on the package that each roll contained 100 sheets, each 27.9 cm by 23.9 cm (equivalent to 11 inches by 9.4 inches).

Curiously, the moon report on depths in centimeters and kilometers cited degrees Fahrenheit rather than Celsius; an inconsistency. Anders Celsius, a Swedish astronomer, first described the system in 1742. Essentially, the interval between the boiling point (100) and freezing point (0) of water is divided into 100 equal parts, hence the use of the word centigrade, which is used interchangeably with Celsius. G. O. Fahrenheit devised the thermometer scale that bears his name on which the boiling point of water is 212 degrees and the freezing point is 32 degrees above the zero on his scale. His zero was attained by mixing equal weights of snow and common salt.

It may come as a shock to many taxpayers that the National Bureau of Standards, which is part of the Commerce Department, released an 11 volume report on July 29th that cost \$1.3 million and took three years to



complete. The title is "A Metric America: A Decision Whose Time Has Come." The report proposes a 10 year plan to convert the nation to metrics—"predominantly, though not exclusively..." The conversion would begin in education and international engineering standards. The over-all cost to manufacturers might run from \$10 billion to \$40 billion and could increase export trade to metric countries by one to two billion a year. To allow the nation casually to drift into metrics might take 50 years and would cost far more than the 10-year Government coordinated plan. In two or three decades, the United States would recoup the cost if it worked at it. If we drift it may take eight or nine decades to recover the costs.

It is of more than passing interest that the states, not the Federal government, are largely responsible for enforcing weights and measures and for assuring uniformity. It is significant also that the Government does not seem to be determined to eradicate customary measurements even though the tide of metrification proceeds relentlessly. Beauty contestants undoubtedly will continue to be publicized as "36-23-36" (or similar) rather than the metric equivalent. Turfgrass devotees undoubtedly will cling to "1,000 square feet" for a long long time.

Sod growers, though, may find it less difficult to market "square meters" of sod rather than square yards.

(Continued on page 60)



Horace G. Duncan is the Club Managers Assn. of America's new executive director. He replaces Edward Lyon, who resigned. Duncan has been a member of the association since 1957 and was most recently general manager of Wilscom Enterprises, Denver. He also maintains a consulting and management service in the hospitality industry, including the private club segment.



Phillips

Roger E. Phillips has been promoted to the new position of private brand manager of the General Battery Corp.

Frank Mazza has been appointed territory manager of Dunlop Tire & Rubber Corp. Sport's Div. He covers Louisiana and Mississippi.



W. Davidson



O'Brien

William H. Davidson, president of the Harley-Davidson Motor Company, Inc., was elected chairman of the board. Succeeding Davidson as president and chief executive officer is **John H. O'Brien**. Elected executive vice president-marketing was **John A. Davidson**.

Beard

continued from page 26

earlier application date would minimize the problem of an unexpected permanent early snow fall occurring prior to the time that the snow mold fungicide application is normally made. In addition the treatment can be made in October when conditions are usually more tolerable. The authors also point out that several more years of data should be obtained to confirm these results before this practice can be recommended with confidence.

Comments: Typhula blight (Typhula spp.) or "gray snow mold" is a low temperature organism that most commonly causes disease injury to turfgrasses under the cold, humid conditions commonly occurring under or during thaw of the snow cover. Symptoms usually include a light gray mycelium evident on the turfgrass shoots when the disease is active. Also grayish-white circular patches form in sizes up to two feet in diameter. These can coalesce causing total loss of the existing turf. In

the case of creeping bentgrasses, such as Penncross, the injury results in death of the existing shoot tissue, but the underlying meristems on stolons survive to initiate new growth as soon as favorable growing conditions occur. However, the temporary loss of stand provides an ideal avenue for the invasion of annual bluegrass. Where annual bluegrass occurs in the turf, an attack of *Typhula* blight will result in severe loss of stand with recovery frequently occurring only by the germination of existing seeds in the soil.

One precaution in reviewing this research which the reader should keep in mind is that there are two basic types of snow mold. One is, of course, *Typhula* blight; the second is referred to as *Fusarium* patch or "pink snow mold." A fungicide which is effective in controlling one of the snow mold organisms may not necessarily be effective in controlling the other organism. This should be kept in mind. It is important for the golf course superintendent to assess which type of snow mold is occurring on the particular turfgrass area for which he is responsible. Perhaps both organisms occur. □

Metrics

continued from page 40

Gallons of spray material will become liters and chemicals will be measured by grams and kilograms, which will introduce greater accuracy. (Hashish always is measured in metrics.) Computers undoubtedly will be more easily programmed with greater accuracy in metrics. Shoppers will find it far easier to compute mentally the cost-per-unit of foodstuffs when metrics become the law of the land.

The coming generation will learn metrics in school. Those who have worked with the English system all their lives can convert practically on a "rough and ready" basis, which considers a meter as a little more than a yard, a kilo (kilogram) as just over two pounds, a kilometer as six-tenths of a mile and a liter as a bit more than a quart. If we take a common sense view of the metric, we won't have too hard a time converting. The exception will be the equipment manufacturers who will have to convert on a precise basis.

It would be wasted effort to attempt to bring out in detail in this ar-

ticle the calculations necessary to convert to metric. This conversion will take place in the classrooms, in association meetings, at conferences and in the field. The serious student of turf will have in his library or will have access to a copy of "Turfgrass Science," which has on page xviii (opposite page 1 of chapter 1) a table entitled "Conversion Factors for English and Metric Units." By calculating some everyday English units into metric, according to the simple instructions, anyone can gain easy familiarity (with a little outside help) with the system so that when the law finally is passed, no one will need to panic and begin a crash study program.

There is nothing mysterious about the metric system. The system is factual and precise—and friendly. It is friendly because it is so orderly. Now that we know that a meter is one ten-millionth of the distance from the north pole to the equator, do we want to stick around with three barleycorns to the inch? It would have been cheaper and simpler to have converted to metrics in 1821 when Secretary Adams proposed it. □