

cooked dial gauges.

And on ballast, 3 pencil gauges again performed better than the more expensive dial and digital models. They even outperformed gauges specifically made to withstand chloride corrosion.

The Alberta Farm Machinery Research Centre is publishing a detailed report on tire gauge testing. It explains the performance of the various gauges tested.

Keep A Reference Gauge

Meanwhile, Turner offers these general recommendations:

- The Superex, Motomaster, and Bridgeport 40-402 pencil-type gauges at between \$6 and \$9 had the best performance of the 10 tested, although even among these, there was variability in certain aspects.

- Buy 2 new gauges at a time. Have them both tested for accuracy before they're actually put into use. Finding a testing centre may be difficult. One possibility: a home economist or test kitchen with access to equipment used for testing pressure cookers. It also works on tire gauges.
- Once you know the gauges are accurate, put one away in a clean dry location. Use it as a reference gauge in the future.
- Take good care of the working gauge. After each use, store it in a clean environment.
- If a gauge is used on liquid-ballast tires, make sure it's thoroughly cleaned and dried after each use.
- It's not uncommon for tire pressure to vary 5% during a day. A psi reading may

be slightly higher in the afternoon than in the morning. If the difference is more than 5%, check your working gauge against your reference gauge. If the reading is out, replace the working gauge with a new one that's been tested for accuracy (against your reference gauge).

If all this seems like a lot of fuss over a \$10 gadget, think about the cost of new tractor tires. Getting maximum wear and performance out of each set is worth the investment of a little time.

For the full tire gauge test report, contact the Alberta Farm Machinery Research Centre, 3000 College Drive, Lethbridge, AB. T1K 1L6 (phone 403-381-5729).

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GTI RESEARCH HILITES

Conservation Club Research Funding

The Sports Turf Association joined with several other Turf Associations in forming a Rural Conservation Club which has enabled Dr. Gary Kachanoski, Dr. Terry Gillespie and Dr. Paul Voroney of the Univ. of Guelph and Ms. Pam Charbonneau, turf specialist with O.M.A.F., to receive the first major research grant for work at the Guelph Turfgrass Institute. Funding totalling \$255,600 will be made available for research on 'Water and Chemical Systems for the Turfgrass Industry'.

The quality and use of rural water resources affects the lives of all rural and urban communities. The Turfgrass industry is a significant part of Ontario's Agribusiness and can have a significant impact on how our land and water resources are utilized. Little information is available regarding the impact of existing management systems on water use, and the quality of water leaving the site.

The objectives of the three year study are:

- To measure the quality (nitrate, pesticides, etc.) and amount of excess drainage water under conventional management systems for turf.
- To demonstrate/compare the impact of innovative water conserving irrigation systems on the amount and quality of drainage water from turf.
- To demonstrate/compare the impact of innovative chemical management systems on the quality of drainage water from turf.

The benefits of the study to the turfgrass industry will be to provide data from which more efficient chemical and water use programs can be designed which will reduce the risk of off-site environmental impact to ground and surface water and allow the turf manager to be in compliance with environmental laws. The benefits to the rural and urban communities will be to assure better

quality drinking and recreational water and to provide a better understanding of the effect of chemicals used in the turf industry on the domestic water supplies. Lastly, for all concerned the study will provide information which will aid in the conservation of water in both the urban and rural communities through innovative irrigation scheduling.

The overall approach to the project will be to make detailed measurements of the amount and quality of drainage water under conventional and innovative irrigation/chemical input systems at the field plots of the Guelph Turfgrass Institute. In addition six sites will be selected where intensive monitoring will be conducted under conventional management systems to give baseline values of water quality over a range of soil/site conditions.

Depending on the results of the measurements at these sites, changes in the management will be implemented based on the detailed work at the Turfgrass Institute. This could involve changing irrigation scheduling procedures, changing amounts/types of fertilizer or pesticide, or both.

Conventional irrigation scheduling based on set timing of constant amounts of applied water will be compared to applications amounts and timing based on estimated evapotranspiration rates from detailed meteorological information. Several soil indexes of water, such as tensiometers, dryness sensors and TDR (Time Domain Reflectometer) probes will also be used. The cost and effectiveness of various meteorological based systems and the soil sensor will be compared to determine the simplest system necessary to implement a good water conserving irrigation schedule.

With less water moving through the root zone, less chemicals will be added to the water supplies.