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The use of subirrigation can reduce water usage and increase efficiency in watering. Subirrigation uses the same amount of water as surface irrigation, according to Kneebone. He also mentioned that using moisture sensors in the soil can save up to 50% of water used for irrigation.

Dr. Bob Shearman of the University of Nebraska discussed how heat stress in turfgrass can be reduced by increasing the cutting height, air movement over the turf, syringing, control of thatch accumulation, and less fertilization. Cutting the grass an inch higher can reduce surface temperatures by four or more degrees.

Dr. James Beard of Texas A&M University advised that wind speed has a greater effect on ball roll than any other management practice. He disputed whether double cutting greens increases roll. He recommended topdressing after core samples removal, use of quick dry syrings, selection of fast turfgrasses, and alternate mowing.

Dr. John Madison, professor emeritus of the University of California, outlined the pros and cons of sand topdressing. This procedure helps control thatch; provides a truer, faster putting surface; and allows for deeper rooting. The drawbacks include application rates for chemicals must be carefully adjusted, handling of large volumes of sand, interface problems between soil and sand layers, and localized dry spots. Madison recommended frequent light applications of sand over fewer heavy applications. He said up to 50 applications per year may be necessary in some locations. The size of the sand particle is also critical.

Dr. Roy Goss of the Western Washington Extension Center showed that material from the explosion of Mount St. Helens is very similar to present soils, lacking primarily organic matter. Goss said one cubic mile of material now coats more than 600,000 acres of land in the area. Trials have indicated that bentgrasses, fescues and ryegrasses will succeed on the ash with less success with bluegrasses. Dr. Paul Rieke of Michigan State University compared wetting agents available to turf managers. He recommended irrigation prior and following application of wetting agents.

Dr. Subir K.R. Rieke of Michigan State University compared wetting agents available to turf managers. He recommended irrigation prior and following application of wetting agents.

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This unretouched photo from California demonstrates an advantage of including 20% Citation with an improved blend of bluegrasses. On the left is 100% Kentucky bluegrass damaged by Fusarium blight. On the right the Citation-bluegrass mixture shows little or no damage.

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There are six nozzles and two nozzle tubes—one for long range, the other for mid range. Brass threads on the tubes eliminate potential nozzle blowout due to high pressures in the hydraulic-seeding process.

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The super nozzle system developed by Erocon-Pacific Corp. uses the laminar flow principle of movement to provide a significant improvement in the application of water-based slurries used for hydraulic seeding and fire fighting. This system modifies violent turbulence, created in the centrifugal pump, to straight-line stream flow as it leaves the nozzle tip.

It consists of two nozzle tubes and six different nozzles. The chemical resistant tubes are designed, one for long range and the other for mid range. Brass threads on the tubes eliminate potential nozzle blow-out due to the high pressures used in the hydraulic seeding process. Different combinations of nozzles and tubes provide smoother application of water slurries at different distances. System is available for new equipment or as replacement for present nozzles.

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