

All of the information has now been collected to determine "How much water does the sprayer apply to one acre?" Now you need to perform a simple calculation. The known information is that the spray unit applies 4.59 gallons of water to 2,000 square feet. To determine the GPA of this spray unit a proportion is used. The GPA can be expressed in numerical form: gallons/acre (one acre equals 43,560 square feet). Similarly, the example volume and area can be arranged in numerical fashion: 4.59 gallons/2,000 square feet. Setting both of these equations equal to one another is a proportion that can determine the GPA of the spray unit (see figure at right).

This means that the spray unit is calibrated to deliver approximately 100 gallons of water per acre or 100 GPA. If a change in the GPA is desired several variables could be adjusted. The ground speed of the spray unit may be increased to lower the GPA. Nozzles with larger/smaller openings could be used to increase or decrease GPA. Finally, to some degree the pressure could be changed. Note that nozzle manufacturers have a recommended operating pressure range for maximum performance that should be followed.

After the calibration procedure has been completed, you'll have a better understand of the spray unit's performance. This will enable

$$\frac{4.59 \text{ gallons}}{2,000 \text{ sq.ft.}} = \frac{? \text{ gallons}}{43,560 \text{ sq.ft.}}$$

Solving for ? :

$$? \times 2,000 = 4.59 \times 43,560$$

$$? = \frac{4.59 \times 43,560}{2,000}$$

$$? = 99.97, \text{ or approximately } 100$$

you to apply materials with accuracy. To ensure uniform material applications spray units should be calibrated before every application.

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John Mascaro's Photo Quiz

Can you identify this sports turf problem?

Problem: Brown Turf
Turfgrass Area: Stadium field
Location: Florida
Grass Variety: 419 Bermudagrass



Answer to John Mascaro's Photo Quiz on Page 45
John Mascaro is President of Turf-Tec International

John Mascaro's Photo Quiz



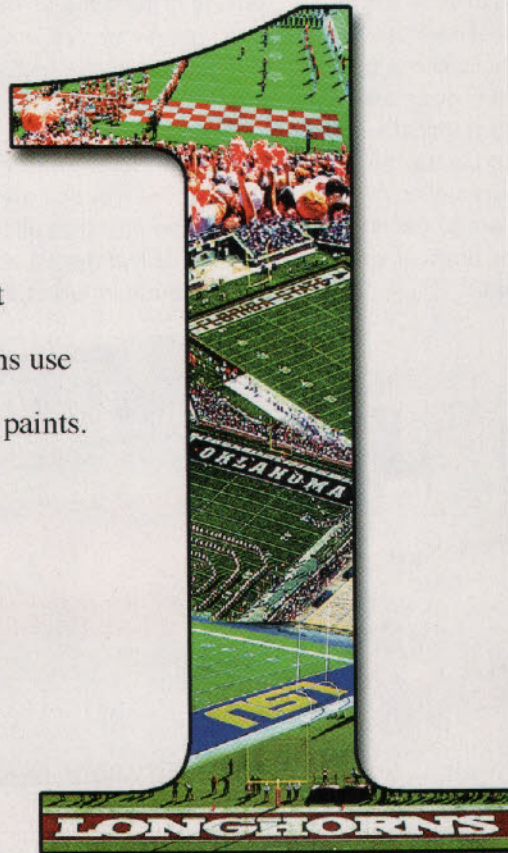
Answer:
from page 26

The brown turf was a result of a Recreational Vehicle (RV) Show on the stadium field. This photo dates back to 1990 when Dolphin Stadium in Miami was just 3 years old. As with many new privately built stadiums, they book as many different events as possible to generate revenue. A promoter talked the management in allowing them to cover the field with geotextile fabric and display the RVs on the natural grass Prescription Athletic Turf Field. The photo on the photo quiz question's page (inset) shows the damage left after the vehicles and geotextile were removed. What the photos do not show are the depressions that were left behind. In a couple of areas, the weight of the vehicles even crushed some of the underlying drainage lines. Needless to say, this event was never again repeated on this field.

If you would like to submit a photograph for John Mascaro's Photo Quiz please send it to John Mascaro, 3669 NW 124th Avenue, Coral Springs, FL 33065 or email to john@turf-tec.com. If your photograph is selected, you will receive full credit. All photos submitted will become property of SportsTurf magazine.

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