

For the data given in Figure 2, the overall average depth measured was 0.31 inches. In Figure 2, the absolute values of the differences between each of the individual depths and the average depth is shown in parenthesis below each of the depths measured. The sum of the absolute values of these differences for each of the 16 data points is 0.46 inches. The average deviation is then $0.46/16 = 0.029$ inches, and

$$UC = 100\% [1.0 - (0.029/0.31)] = 92.7\%$$

Acceptable Uniformity Coefficients

Acceptable values of uniformity coefficients vary with the type of crop being grown and the specific uniformity equation used. Both equations result in approximately the same values when uniformity is high. However, DU values are normally much lower than UC values when uniformities are low.

For high cash value crops, especially shallow rooted crops, the uniformities should be high (DU values greater than 80%, or UC values greater than 87%). For typical field crops, DU values should be greater than 70% (UC values greater than 81%). For deep rooted orchard and forage crops, uniformities may be fairly low if chemicals are not injected (DU values above 55% and UC values above 72%).

Uniformity coefficients should be high (DU values greater than 80% or UC values greater than 87%) whenever fertilizers or other chemicals are injected into the irrigation systems. If uniformity coefficients are lower than these values, system repair, adjustment or modification may be required. If uniformity coefficients are periodically measured (at least annually), system repairs or adjustments can be scheduled when coefficients fall below the above values.

Runoff

Runoff will reduce the amount of water applied to high areas and may increase the amount applied in low areas where the water may collect and infiltrate. During system tests and during normal sprinkler operation, runoff should not occur. This is normally not a problem on typical Florida sandy soils, but if runoff occurs, design or management changes should be made to eliminate it. Shorter, more frequent irrigations may be scheduled to reduce runoff, or it may be necessary to reduce nozzle sizes to reduce application rates. If the system operation must result in runoff (such as in some strawberry and nursery operations), recovery ponds can be used to collect runoff for future use.