

Irrigation Uniformity: Ensuring Maximum Sustainable Site Life and Cost Efficiency

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Abstract. One of the most important characteristics of an efficient irrigation system is making sure it is designed and maintained to distribute water as uniformly as possible. Even distribution means uniform application of water and nutrients to soil and receiving crops. Over-irrigation may lead to costly remediation from localized ponding, soil saturation, anoxic root zones, plant “drowning” and die-back, compaction, etc. Well-designed systems using modern equipment should have a distribution uniformity of 75-85%. Lower uniformity dramatically increases water usage, probability for disease, localized ponding, and runoff. Distribution Uniformity (DU) is the measure of how evenly the irrigation system applies water to the landscape. This presentation will identify the common causes for Poor DU, and identify calculations that can help to alleviate potential problems. Distribution Uniformity can lengthen the site life and provide cost efficient measures, while providing the best stewardship of our water resources.