

Prepare for the 2007 Potato-Irrigation Season (appeared in the May 2007 Spudvine newsletter)

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Recent April showers may have delayed potato planting in some areas, but when you live in a dry climate like Idaho, most any precipitation is welcomed. Yet, just as surely as producers will plant another potato crop, they will need to irrigate it during the summer. Potatoes are particularly sensitive to water management, and yield and quality can be significantly reduced by both applying too little or too much water.

Applying too little water can reduce the number of tubers, produce undesirable tuber shapes, and increase potential for tuber problems such as translucent ends. Over-irrigating can leach water-soluble plant nutrients below the potato root zone and increase disease potential. Therefore, to minimize potential problems and achieve maximum yield and quality, irrigation equipment must be designed, maintained, and operated to uniformly apply the correct amount of water.

The amount of moisture that can be stored in the soil in combination with irrigation system capacity must be able to provide sufficient water during the highest water use parts of the season. There are advantages and disadvantages to both continually-moving and set-and-move systems. While most hand-line, wheel-line and

optimizing potato yield and quality. Design and maintain your irrigation system to assure application uniformity and to be certain the irrigation system is designed to meet peak-season water requirements, considering potential root zone water storage. Early season water management should fill the crop root zone for later use during peak ET. Carefully match water application to crop ET use during the entire season.

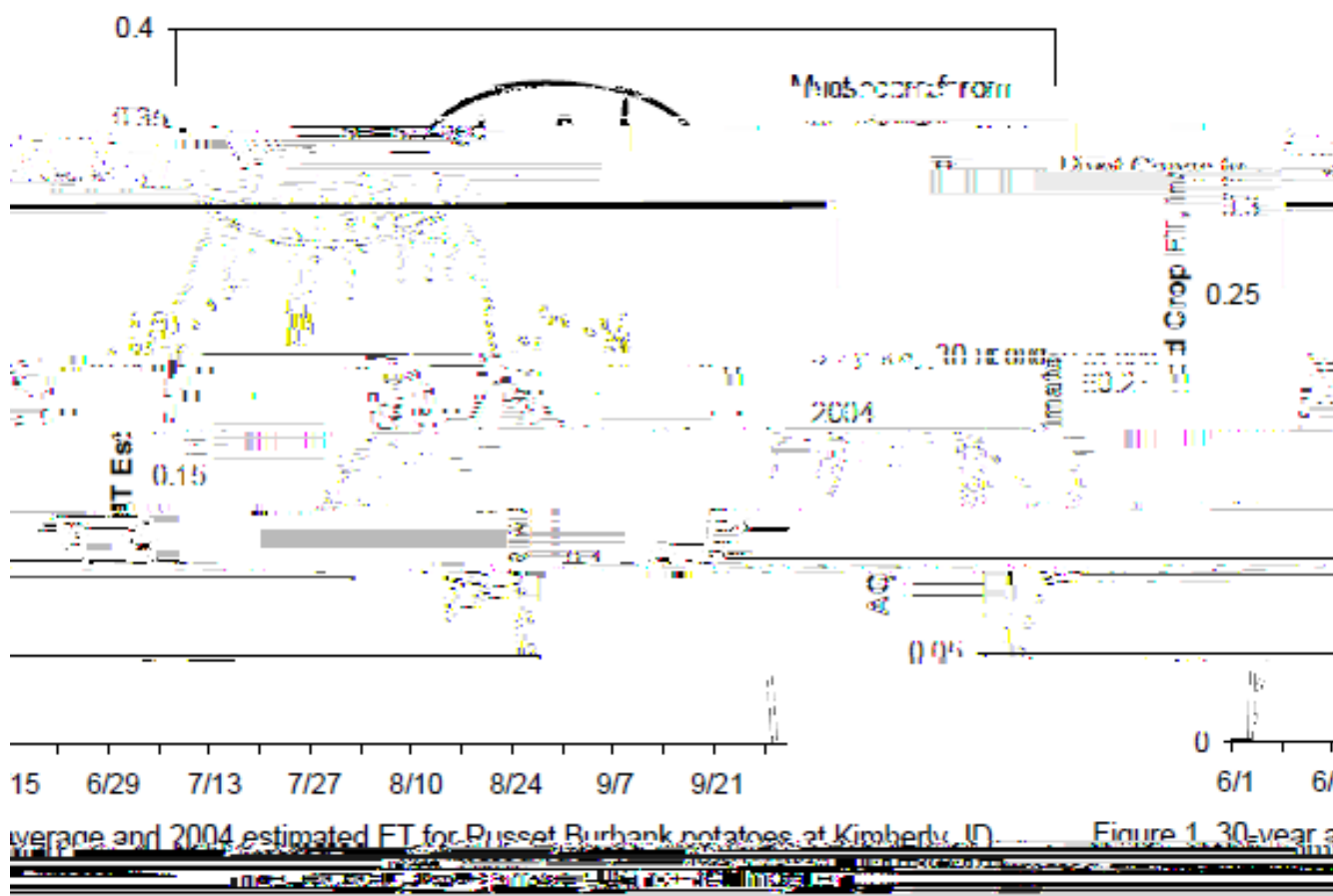


Figure 1. 30-year average and 2004 estimated ET for Russet Burbank potatoes at Kimberly, IN.

