listed in Table 7. The potential *ET* computed by those four methods varied slightly from the 1020 mm value because of rounding the coefficients to the nearest 0.05 value. The results of the Stephens-Stewart method are also listed.

The deviations between the water budget and model predictions for each month were computed. Also the totals of the absolute values of these deviations were computed (Table 8). The total absolute deviation is used as a criterion for judging the applicability of each method for estimating *ET* for the basin. The smaller absolute deviation means better prediction. Several observations can be made from Table 8.

A positive value in Table 8 indicates that the method overpredicted monthly *ET*. The pan evaporation, Blaney-Criddle, and Radiation-Modified Blaney-Criddle methods over-predicted *ET* during winter months October through March and under-predicted *ET* during summer months. In contrast, the Thornthwaite method over-predicted *ET* in the summer and fall (June through November) and predictions were generally low December through May.

The soil water storage in the EAA changes significantly at both the beginning (May) and the ending (October) of the wet season. The water table in the area is maintained about 200 mm higher in the wet season than in the dry season. In muck soil, a change in the water table depth of 200 mm results in a change in soil water storage of about 33 mm. The water budget method used to estimate *ET* for the EAA did not take this change in soil water storage into account. The large deviations between the water budget and the Penman and other methods in May and October (Table 8) can be partially explained by increased soil water storage in May and decreased soil water storage in October.

The total of the absolute values of the deviations varied from 162 for the Stephens-Stewart method to 253 mm for the Thornthwaite method, an average deviation of 14 to 21 mm per month. On the basis of seasonal trends in deviations and on average deviations, the Penman and Stephens-Stewart methods best predicted monthly *ET* and the Thornthwaite method predicted poorest. In third place was the Shih et al. (1977) Radiation-Modified Blaney-Criddle method. In fourth and fifth places were 209 mm for the pan evaporation method, and 238 mm for the original Blaney-Criddle method, respectively. Stephens and Stewart (1963) also found that the ranking of accuracy of methods was Stephens-Stewart = Penman > Blaney-Criddle > Thornthwaite in their comparison of nine methods of computing monthly ET_p at Ft. Lauderdale.

3.2 EXPERIMENTAL PLOT WATER BUDGET VERIFICATION

3.2.1 Monthly Water Budget

Figure 4 shows 5-day average *ET* rates for turfgrass grown in lysimeters at Fort Lauderdale in 1965 with water tables maintained 30 cm below the