Anexo VI (b) - Resultado do programa KCISA para a cultura do milho-grão para a freguesia de Ferreira do Alentejo

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mi32.TXT

*********************************************************
*                         INPUT DATA                    *
*********************************************************
 Meteorological Data Files:
 32s.ET0     32s.PRE     32s.VEN     32s.TPI     32s.TPA
 32s.NDA
 Time step: Monthly   ;  Number of years:  51;  First year: 1941
 First month: January  ; Last month: December
 Wind Speed height measurement (m):  2.00

CROP TYPE: Annual field crop.

  CROP DEVELOPMENT STAGES:
    Plant date:  1/ 5
    Lini (days):   25
    Ldev (days):   35
    Lmid (days):   40
    Lend (days):   30

  Kc mid tab:1.20
  Kc end tab: .35
  crop height (m): 2.2

  Initial effective rooting depth (m):   .07
  Maximum effective rooting depth (m):  1.10
  Soil moisture depletion fraction for no stress, p tab. [0-1] :   .55

  Yield response factor, Ky:    .00

  SOIL Data:
  Evaporation layer depth (mm): 125.0
  % Sand: 48.0 % Silt: 21.0 % Clay: 31.0
  Soil water content at Field capacity (% vol.):  31.0
  Soil water content at Wilting point (% vol.):  19.0

  INITIAL CONDITION:
  Soil water content at the beginning of the initial period (% TAW):  75.0


*********************************************************
*                      MIDLE RESULTS                    *
*********************************************************

    1941   Initial Stage (from  1/ 5 to 26/ 5):
 ----------------------------------------

  Average of the Reference Evapotransp. (mm/day):  3.88
  Total of Precipitation (mm):   23.91
    Number of rainfall events in the initial period:   4

      Kc ini =  .40 using the following values:

         TEW =  10.00 mm; total evaporable water
         REW =   3.05 mm; evaporable water on stage 1 drying
         tw  =  6.25 days; mean time interval between wetting events
         Es0 =  4.46 mm/day; potential rate of evaporation
         t1  =   .68 days; time to complete stage 1
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         nw  =   4; number of wetting events during initial period
         fw  = 1.0; average fraction of surface wetted by irrigation/prec.


1941   Mid Stage (from 30/ 6 to  9/ 8):
    ----------------------------------
      Average Reference Evapotransp. (mm/day):   5.87
      Total of Precipitation (mm)            :  40.99
      Average of the Wind Speed (m/s)        :   2.34
      Minimum Relative Humidity (%)          :  35.57

                                      Kc mid :   1.25

1941   Harvest day ( 8/ 9):
     ------------------------
      Average Reference Evapotransp. (mm/day):   4.31
      Total of Precipitation (mm)            :    .47
      Average of the Wind Speed (m/s)        :   2.06
      Minimum Relative Humidity (%)          :  33.92

                                      Kc end :    .35
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(...)

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1991   Initial Stage (from  1/ 5 to 26/ 5):
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  Average of the Reference Evapotransp. (mm/day):  5.20
  Total of Precipitation (mm):     .00
    Number of rainfall events in the initial period:   0

      Kc ini =  .08 using the following values:

         TEW =  10.00 mm; total evaporable water
         REW =   2.63 mm; evaporable water on stage 1 drying
         tw  = 25.00 days; mean time interval between wetting events
         Es0 =  5.98 mm/day; potential rate of evaporation
         t1  =   .44 days; time to complete stage 1
         nw  =   1; number of wetting events during initial period
         fw  = 1.0; average fraction of surface wetted by irrigation/prec.

1991   Mid Stage (from 30/ 6 to  9/ 8):
    ----------------------------------
      Average Reference Evapotransp. (mm/day):   6.46
      Total of Precipitation (mm)            :    .52
      Average of the Wind Speed (m/s)        :   2.43
      Minimum Relative Humidity (%)          :  33.16

                                      Kc mid :   1.26

1991   Harvest day ( 8/ 9):
     ------------------------
      Average Reference Evapotransp. (mm/day):   4.25
      Total of Precipitation (mm)            :    .67
      Average of the Wind Speed (m/s)        :   2.14
      Minimum Relative Humidity (%)          :  35.67

                                      Kc end :    .35


YEAR   KCini  KCmid  KCend   Pini   Pmid   Pend

  1941    .40   1.25    .35    .60    .46    .69
  1942    .09   1.27    .35    .60    .41    .69
  1943    .08   1.25    .35    .60    .44    .70
  1944    .09   1.24    .35    .60    .46    .70
  1945    .26   1.23    .35    .60    .46    .68
  1946    .91   1.28    .35    .60    .40    .69
```

1947	.28	1.26	.35	.60	.44	.69
1948	.85	1.26	.35	.60	.44	.68
1949	.09	1.26	.35	.60	.44	.70
1950	.67	1.28	.35	.60	.40	.69
1951	.29	1.25	.35	.60	.45	.69
1952	.71	1.25	.35	.60	.45	.69
1953	.07	1.28	.35	.60	.40	.69
1954	.08	1.28	.35	.60	.40	.69
1955	.23	1.26	.35	.60	.44	.68
1956	.17	1.26	.35	.60	.43	.70
1957	.36	1.26	.35	.60	.41	.69
1958	.08	1.27	.35	.60	.41	.69
1959	.64	1.25	.35	.60	.44	.70
1960	.54	1.26	.35	.60	.42	.69
1961	.45	1.26	.35	.60	.41	.69
1962	.08	1.27	.35	.60	.42	.69
1963	.34	1.26	.35	.60	.43	.69
1964	.08	1.26	.35	.60	.44	.69
1965	.07	1.27	.35	.60	.42	.69
1966	.07	1.25	.35	.60	.45	.69
1967	.65	1.26	.35	.60	.44	.69
1968	.25	1.25	.35	.60	.44	.69
1969	.64	1.25	.35	.60	.43	.70
1970	.43	1.25	.35	.60	.45	.69
1971	.89	1.24	.35	.60	.48	.70
1972	.14	1.24	.35	.60	.48	.70
1973	.52	1.25	.35	.60	.46	.69
1974	.19	1.27	.35	.60	.41	.69
1975	.41	1.26	.35	.60	.45	.70
1976	.10	1.25	.35	.60	.46	.70
1977	.10	1.26	.35	.60	.49	.70
1978	.60	1.28	.35	.60	.44	.69
1979	.09	1.24	.35	.60	.50	.71
1980	.55	1.26	.35	.60	.43	.69
1981	.29	1.26	.35	.60	.42	.70
1982	.08	1.24	.35	.60	.47	.70
1983	.57	1.23	.35	.60	.50	.69
1984	.62	1.26	.35	.60	.44	.69
1985	.31	1.25	.35	.60	.45	.69
1986	.09	1.26	.35	.60	.44	.70
1987	.08	1.24	.35	.60	.46	.69
1988	.58	1.26	.35	.60	.44	.68
1989	.62	1.25	.35	.60	.44	.69
1990	.09	1.26	.35	.60	.43	.70
1991	.08	1.26	.35	.60	.42	.69

****
* FINAL RESULTS (average) *
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Initial Period, from 1/ 5 to 26/ 5:
Kc ini = .33
p = .60
Zr varies from .07 to .50
Crop Development Period, from 26/ 5 to 30/ 6:
Kc varies from .33 to 1.26
p varies from .60 to .44
Zr varies from .50 to 1.10
Mid Season Period, from 30/ 6 to 9/ 8:
Kc mid = 1.26
p = .44
Zr = 1.10
Late Season Period, from 9/ 8 to 8/ 9:
Kc varies from 1.26 to .35
p varies from .44 to .69
Zr varies from 1.10 to 1.10

Harvest Day, 8/ 9:
Kc end = .35
p = .69
Zr = 1.10