ПРОГРАММА ДЛЯ ЭВМ

«ДИНАМИКО-СТАТИСТИЧЕСКИЙ МЕТОД ПРОГНОЗА УРОЖАЙНОСТИ И ВАЛОВОГО СБОРА ОЗИМОЙ ПШЕНИЦЫ ПО СУБЪЕКТАМ РОССИЙСКОЙ ФЕДЕРАЦИИ»»

Правообладатель:

Федеральное государственное бюджетное учреждение «Всероссийский научно-исследовательский институт сельскохозяйственной метеорологии» (ФГБУ «ВНИИСХМ»)

Фрагменты исходного текста программ

Авторы:

Лебедева В.М.,

Гончарова Т.А.,

Найдина Т.А.

Расчет урожайности озимой пшеницы в областях Центрально-Черноземной зоны

```
C     РАСЧЕТ УРОЖАЙНОСТИ ОЗИМОЙ ПШЕНИЦЫ ДЛЯ ЦЧО
c     1-БРЯНСКАЯ ОБЛАСТЬ
C     3-ОРЛОВСКАЯ ОБЛАСТЬ
C     5-БЕЛГОРОДСКАЯ ОБЛАСТЬ
C     6-ВОРОНЕЖСКАЯ ОБЛАСТЬ
c     7-КУРСКАЯ ОБЛАСТЬ
C     8-ЛИПЕЦКАЯ ОБЛАСТЬ
C     9-ТАМБОВСКАЯ ОБЛАСТЬ
C     ДАННЫЕ С АПРЕЛЯ ПО СЕНТЯБРЬ
      DIMENSION N11C(9),N22C(9),N11V(9),N22V(9),W00(9,18),
     *SBM(9),TSS(9,18),Y1(9,50),YR(70),STR(39),
     *W0C(15),TSC(15),W0(15),TS(15),DV(15),Y(70),t(15), IG1(70)
     *,IG2(20), S5(9,20), RRR(21), BCC(50)
      CHARACTER*20 OBL
          CHARACTER*57 ZAG
      COMMON /BL1/T0/BL2/DV,JC,N
      COMMON /BL3/MP/BL4/TEN/BL5/KH
      REAL MP
       integer nobl,kkk
       character datepr*10, method*10
       real prognoz
      INTEGER T0,DV
      DATA N11C/9*1/
      DATA N22C/9*4/
      DATA N11V/19,25,20,23,12,9,17,17,17/
      DATA N22V/9*7/
      DATA SBM/190.4,177.9,217.3,244.7,191.9,179.8,
     *199.0,230.5,207.5/
      DATA (W00(1,K),K=1,18)/14.,14.,14.,18.,18.,18.,24.,24.,25.,28.,
     *29.,28.,11.,11.,11.,111.,111.,111./
      DATA (W00(2,K),K=1,18)/14.,14.,14.,18.,19.,19.,24.,25.,25.,
     *30.,31.,30.,11.,11.,11.,111.,111.,111./
      DATA (W00(3,K),K=1,18)/12.,13.,13.,18.,19.,19.,23.,23.,24.,
     *29.,30.,29.,11.,11.,11.,111.,111.,111./
      DATA (W00(4,K),K=1,18)/12.,12.,13.,17.,18.,18.,20.,21.,21.,
     *26.,27.,26.,11.,11.,11.,111.,111.,111./
      DATA (W00(5,K),K=1,18)/12.,13.,13.,16.,17.,17.,21.,21.,22.,
     *23.,23.,22.,11.,11.,11.,111.,111.,111./
      DATA (W00(6,K),K=1,18)/12.,12.,12.,15.,16.,16.,19.,19.,19.,
     *21.,22.,21.,11.,11.,11.,111.,111.,111./
      DATA (W00(7,K),K=1,18)/13.,13.,13.,17.,17.,18.,22.,23.,23.,
     *26.,26.,25.,11.,11.,11.,111.,111.,111./
      DATA (W00(8,K),K=1,18)/11.,12.,12.,17.,17.,17.,19.,20.,20.,
     *23.,23.,23.,11.,11.,11.,111.,111.,111./
      DATA (W00(9,K),K=1,18)/11.,11.,12.,15.,15.,15.,18.,19.,19.,
     *22.,23.,22.,11.,11.,11.,111.,111.,111./
      DATA (TSS(1,K),K=1,18)/3.7,6.3,8.6,12.2,13.4,14.3,16.2,16.5,
     *17.8,17.3,18.8,18.0,11.1,11.1,111.,111.,111.,111./
      DATA (TSS(2,K),K=1,18)/2.5,5.3,7.8,11.1,12.4,13.4,15.2,15.7,
```

```
*17.0,16.7,18.1,17.4,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(3,K),K=1,18)/2.8,5.9,8.4,11.9,13.5,14.4,16.2,16.6,
*18.0,17.7,19.0,18.4,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(4,K),K=1,18)/2.6,5.7,8.2,11.6,13.2,14.2,16.1,16.5,
*17.8,17.6,18.9,18.2,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(5,K),K=1,18)/5.0,7.6,10.1,13.5,15.1,15.7,17.6,18.0,
*19.3,19.2,20.4,19.8,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(6,K),K=1,18)/4.9,8.0,10.5,13.9,15.6,16.2,17.9,18.8,
*20.0,19.9,21.0,20.6,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(7,K),K=1,18)/3.9,6.6,9.2,12.6,14.2,15.0,16.9,17.1,
*18.4,18.1,19.5,18.8,111.,111.,111.,111.,111.,111./
 DATA (TSS(8,K),K=1,18)/3.4,6.8,9.2,12.8,14.5,15.2,16.9,17.7,
*18.9,18.7,20.0,19.3,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(9,K),K=1,18)/3.4,7.0,9.6,13.0,14.8,15.5,17.6,18.2,
*19.2,19.1,20.2,19.7,11.1,11.1,111.,111.,111.,111./
      OPEN (5, FILE="OPDCHO.DAT")
      READ(5,104)ZAG
 READ(5,108)ND,MD,NG, NGf
 OPEN (6, FILE="OPDCHO.RES")
 k5=16
 NMAX=NG-1
 NMIN=1970
 IGG1=NGf       ! НАЧАЛЬНЫЙ ГОД ПРОГНОЗА
 if (NGf.eq.0) IGG1=NG
      KC=NMAX-NMIN+1
 IGPROG=NMAX-IGG1+1  ! КОЛ-ВО ЛЕТ ПРОГНОЗА
 DO 2 I=1,1
 READ(5,103)OBL
 IF (INDEX (OBL, 'БРЯНСК').GT.0) NOBL=12
      IF (INDEX (OBL, 'ОРЛОВС').GT.0) NOBL=13
      IF (INDEX (OBL, 'БЕЛГОР').GT.0) NOBL=17
 IF (INDEX (OBL, 'ВОРОНЕЖ').GT.0) NOBL=18
 IF (INDEX (OBL, 'КУРСК').GT.0) NOBL=16
      IF (INDEX (OBL, 'ЛИПЕЦК').GT.0) NOBL=14
      IF (INDEX (OBL, 'ТАМБОВ').GT.0) NOBL=15
 IF (NOBL.EQ.12) NO=1
      IF (NOBL.EQ.13) NO=3
      IF (NOBL.EQ.17) NO=5
      IF (NOBL.EQ.18) NO=6
      IF (NOBL.EQ.16) NO=7
      IF (NOBL.EQ.14) NO=8
      IF (NOBL.EQ.15) NO=9
  KKK=006
 READ(5,106) (IG1(L),L=1,KC)     ! ВВОД ЛЕТ
      READ(5,104)ZAG
      READ(5,105)(YR(L),L=1,KC)
 READ(5,104)ZAG
 READ(5,1181) (IG2(L),L=1,IGPROG+1) ! ВВОД ПЛОЩАДЕЙ
 READ(5,118) (S5(NO,L),L=1,IGPROG+1)
 DO 1 J=1,KC
 Y1(NO,J)=YR(J)
1 CONTINUE
```

```
      DO 30 I55=1,IGPROG+1   ! КОЛ-ВО ЛЕТ ПРОГНОЗА
      READ(5,104) ZAG
          write(6,104) ZAG
      READ(5,104) ZAG
      READ (5,100) (TSC(L),L=1,8)
      READ(5,104) ZAG
      READ (5,100) (RRR(J),J=1,21)
      READ(5,104) ZAG
          READ (5,100) (W0C(J),J=1,8)
      do 9 j=1,8
      if (tsc(j).eq.99.9.or.w0c(j).eq.99.9)goto 30
    9 continue
      DO 3 J=1,31
      Y(J)=Y1(NO,J+(IGG1-31-1-1970+I55))
    3 CONTINUE
          N5=31 !KC
      K=15
      CALL GARM(N5,K,Y)
      N1C=N11C(NO)
      N2C=N22C(NO)
      CALL TNUL(N1C,N2C)
      N1V=N11V(NO)
      N2V=N22V(NO)
      CALL DVV(N1C,N2C,N1V,N2V)
      IF(N2C.EQ.4.AND.N1C.LE.10)NP=0
      IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))NP=1
      IF(N2C.EQ.4.AND.N1C.GT.20)NP=2
      IF(N2C.EQ.5.AND.N1C.LE.10)NP=3
      IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))NP=4
      IF(N2C.EQ.5.AND.N1C.GT.20)NP=5
cv-----------------------Корректировка оценки второго срока прогноза--------
      if (md.eq.6) then
            !считаем на 5 срок_begin
        CALL KDEK(ND,5,N1C,N2C)
        DO 75 J=1,N
        TS(J)=TSS(NO,JC-10+J)
        W0(J)=W00(NO,JC-10+J)
   75   CONTINUE
        DO 85 J=1,KH
        TS(J)=TSC(J+NP)
        W0(J)=W0C(J+NP)
   85   CONTINUE
        CALL DMPP(W0,TS,DV,T0,NO,N,AF0,RAST,W00,5,RRR,0)
            MP_may=MP !считаем на 5 срок_end
            !считаем на 6 срок_begin
        CALL KDEK(ND,MD,N1C,N2C)
        DO 71 J=1,N
        TS(J)=TSS(NO,JC-10+J)
        W0(J)=W00(NO,JC-10+J)
   71   CONTINUE
        DO 81 J=1,KH
        TS(J)=TSC(J+NP)
```

```
      W0(J)=W0C(J+NP)
  81   CONTINUE
      CALL DMPP(W0,TS,DV,T0,NO,N,AF0,RAST,W00,MD,RRR,1)
           MP_june=MP !считаем на 6 срок_end
      if ((abs(MP_june-MP_may)/SBM(NO)).gt.0.03) !0.03 - это 3%, можно менять
     *     MP=MP_may
       else
      CALL KDEK(ND,MD,N1C,N2C)
      DO 7 J=1,N
      TS(J)=TSS(NO,JC-10+J)
      W0(J)=W00(NO,JC-10+J)
   7   CONTINUE
      DO 8 J=1,KH
      TS(J)=TSC(J+NP)
      W0(J)=W0C(J+NP)
   8   CONTINUE
           CALL DMPP(W0,TS,DV,T0,NO,N,AF0,RAST,W00,MD,RRR,1)
         endif
cv-------------------------------------------------------------------------
     C1=MP/SBM(NO)
     IF(C1.LT.0.50)C1=0.50
     IF(no.ne.6.and.C1.GT.1.20)C1=1.20
     IF(no.eq.6.and.C1.GT.1.50)C1=1.50

     if(no.eq.1.and.(IGG1+I55-1).gt.2006.and.ten.lt.25)ten=25
     if(no.eq.1.and.(IGG1+I55-1).gt.2006.and.ten.Gt.30)ten=28
     IF(NO.eq.1.and.(IGG1+I55-1).eq.2008) ten=28
     if(no.eq.3.and.ten.lt.25)ten=25
     if(no.eq.3.and.ten.ge.34.9)ten=30
     if(no.eq.5.and.(IGG1+I55-1).gt.2003.and.ten.lt.27)ten=27
          IF(NO.eq.5.and.(IGG1+I55-1).eq.2008) ten=47.
     if(no.eq.7.and.(IGG1+I55-1).lt.2001.and.ten.gt.26)ten=26
     if(no.eq.7.and.ten.lt.24)ten=24
     if((no.eq.7).and.((IGG1+I55-1).eq.1994.or.(IGG1+I55-1).eq.1995))
    *                                        ten=21
     IF(NO.eq.7.and.(IGG1+I55-1).eq.2008) ten=35.
     IF(NO.EQ.8.and.(IGG1+I55-1).le.2000)ten=26
     if(no.eq.8.and.(IGG1+I55-1).gt.2000.and.ten.lt.29)ten=29
     IF(NO.eq.8.and.(IGG1+I55-1).eq.2008) ten=36.
     if(no.eq.9.and.(IGG1+I55-1).gt.2005.and.ten.lt.24)ten=24
     IF(NO.eq.9.and.(IGG1+I55-1).eq.2008) ten=30.
     PR=C1*TEN
     C1=C1*100.
     VAL=PR*S5(NO,I55)*0.1
     GOTO 40
     GOTO 30
  40 WRITE(6,113)OBL,TEN,C1,PR,S5(NO,I55),VAL
     write(datepr,9991) nd,md,IGG1+I55-1 !ng
 9991 format(i2,'.0',i1,'.',i4)
     PROGNOZ=PR
          BCC(I55)=PR
  30 CONTINUE
```

```
        CALL OPRAV (OBL,IGPROG,BCC,NO,YR,IG2,IG1,KC,NMIN,NMAX,ND,MD,NG)
   2 CONTINUE
 100 FORMAT (21F5.1)
 101 FORMAT(12('-'),'Прогноз урожайности озимой пшеницы на ',I3,I2,I5,
    *' г.',16('-'))
 103 FORMAT (A20)
 104 FORMAT(A57)
 105 FORMAT(16F5.1)
 106 FORMAT(16I5)
 107 FORMAT(1X,5I3,4F5.1)
 108 FORMAT(I3,I2,2I5)
 110 FORMAT(2x,76('-'))
 111 FORMAT('    Субъект     | Тенденция  |Оценка условий|  Прогноз   |
    * Площадь,| Валовой')
1111 format('   Российской   |урожайности,|  вегетации,  |урожайности,|
    * тыс.га  |  сбор,')
 112 format('   Федерации    |   ц/га     |    %         |    ц/га    |
    *         | тыс.тонн')
1121 format('----------------+------------+--------------+------------+
    *---------+-----------')
 113 FORMAT(A16,"|",F8.1,4X,"|",F9.1,5X,"|",F8.1,4X,"|",F8.2,X,"|",F9.2
    *)
 114 FORMAT(1X,I2,1X,A20,56('-'))
 115 FORMAT(24I3)
 116 FORMAT(14F5.2)
 117 FORMAT(16X,5A4,2I5)
 118 FORMAT (16F10.1)
1181 FORMAT (16I10)
     END

     SUBROUTINE DMPP(W0,TS,DV,T0,NO,N,AF0,RAST,W00,MD,RRR,i_print) !printYN -
печатать результаты или нет
     DIMENSION W0(15),TS(15),DV(15),TSS(150),W00(9,18),           !если printYN=1, то
печатать
    *TS11(15),BKK(9),BBB(9),TF(9),TR(9),ZZL(9),                   !если printYN=0, то не
печатать
    *TOPL(9),TOPS(9),TOPR(9),TOPP(9),TPP(9),FII(9),
    *AF00(9),GS(9),TKS(9),sumoc(27),RRR(21)
     COMMON /BL3/MP
     INTEGER T0,DV,GI,G2
     REAL DAX1(0:42),DAX2(0:27),DAX3(0:27),DAX4(0:27),DAX5(0:27)
     REAL M,ML,MS,MR,MP,LL,KSIFL,J0,JJ
     DATA TKS/909.5,897.4,925.4,946.8,952.5,954.3,
    *942.5,972.2,1006.9/
     DATA FII/53.0,54.5,52.6,54.0,50.5,51.0,51.5,52.5,52.5/
     DATA VL/0.03/
     DATA VS/0.02/
     DATA VR/0.03/
     DATA SL/0.000544/
     DATA BKK/9*25./
     DATA BBB/9*581.4/
     DATA CL/0.26/
```

```
      DATA CS/0.36/
      DATA CR/0.20/
      DATA CP/0.18/
      DATA AF00/0.45,0.45,0.50,0.50,0.50,0.50,0.50,0.50,0.50/
      DATA TF/9*225./
      DATA TR/9*270./
      DATA TOPL/9*225./
      DATA TOPS/9*250./
      DATA TOPR/9*250./
      DATA TOPP/9*565./
      DATA TPP/9*225./
      DATA ZZL/9*55./
      DATA GS/362,322,326,401,341,381,350,409,399/
      DATA DAX1/14.,
     *     0.,0.5,1.0,1.5,2.0,2.5,3.0,3.5,4.0,4.5,5.0,5.5,
     *     6.0,20.0,
     *     0.97,0.98,1.00,0.95,0.93,0.93,0.92,0.92,0.92,0.92,0.92,
     *     0.85,0.75,0.6,
     *     14*0/
      DATA DAX2/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
     *     0.85,0.92,1.00,1.00,1.00,1.00,1.00,0.80,0.60,
     *     9*0/
      DATA DAX3/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
     *     0.82,0.88,1.00,1.00,1.00,1.00,0.95,0.80,0.60,
     *     9*0/
      DATA DAX4/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
     *     0.80,0.90,1.00,1.10,1.10,1.10,1.10,0.90,0.70,
     *     9*0/
      DATA DAX5/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
     *     0.85,0.90,0.90,0.80,0.75,0.70,0.70,0.70,0.60,
     *     9*0/
      DROST(TS2,TOPT,CC)=(2.3026*(2./TOPT)*10.**(2.-(2./TOPT)*TS2)*
     *1000.*CC)/(1.+10.**(2.-(2./TOPT)*TS2))**2
      GI=0
      J1=1
      ML=GS(NO)*VL
      MS=GS(NO)*VS
      MR=GS(NO)*VR
      MP=0
      M=ML+MS+MR
      LL=GS(NO)*SL
      TS2=0
          sumR=0
      J2=0
      FI=FII(NO)
      BK=BKK(NO)
      BB=BBB(NO)
      ZL=ZZL(NO)
```

```
      AF0=AF00(NO)
      DO 300 J=1,N
      G2=0
      NN=DV(J)
      DO 310 I=1,NN
      TS1=TS(J)-5
      IF(TS1.LT.0) TS1=0
      IF(TS(J).LT.0)TS(J)=0
      TS2=TS2+TS1
      TSS(I+J2)=TS2
  310 CONTINUE
      J2=J2+DV(J)
      TS11(J)=TS1
  300 CONTINUE
c     сумма осадков нарастающим итогом
      sum=0.0
      do 1301 jh=1,n
      sum=sum+w0(jh)
 1301 sumoc(jh)=sum
      sumRRR=0.0 !сумма осадков с сентября по март
           sumR1=0.0 !сумма осадков с сентября по ноябрь
           sumR2=0.0 !сумма осадков с ноября по март
      do 1302 jh=1,21
           if (jh.lt.10) sumR1=sumR1+RRR(jh)
           if (jh.gt.9) sumR2=sumR2+RRR(jh)
 1302 sumRRR=sumRRR+RRR(jh)
      RAST=TS2-TKS(NO)
      if(no.eq.1.and.rast.gt.140)af0=0.505
      if(no.eq.3.and.MD.EQ.05.AND.rast.gt.150)af0=0.585
      if(no.eq.3.and.MD.EQ.06.AND.rast.gt.210)af0=0.58
      if(no.eq.9.and.rast.lt.-20.and.sumoc(5).ge.60)bk=24
      if(no.eq.9.and.sumoc(5).le.35)bk=25.5
CV     2012
      if(no.eq.5.and.RAST.GT.160)bk=32
      if(no.eq.9.and.RAST.GT.220)bk=30
           if (i_print.eq.1) write (6, 451)
           if (i_print.eq.1) write (6,458)sumRRR,sumR1,sumR2
           if (i_print.eq.1) then
            if(no.eq.1)write(6,459)sumRRR/301*100,sumR1/148*100,sumR2/153*100
       if(no.eq.3)write(6,459)sumRRR/274*100,sumR1/140*100,sumR2/134*100
            if(no.eq.5)write(6,459)sumRRR/265*100,sumR1/125*100,sumR2/140*100
            if(no.eq.6)write(6,459)sumRRR/265*100,sumR1/126*100,sumR2/139*100
            if(no.eq.7)write(6,459)sumRRR/284*100,sumR1/139*100,sumR2/145*100
            if(no.eq.8)write(6,459)sumRRR/257*100,sumR1/127*100,sumR2/130*100
       if(no.eq.9)write(6,459)sumRRR/271*100,sumR1/132*100,sumR2/139*100
           endif
  451 format(18x,"сент-март  сент-нояб  дек-март")
  458 format("  Осадки, мм.:",3f11.1)
  459 format("  Осадки, %  :",3f11.1)
      if(no.eq.7.and.RAST.GT.160)bk=29.0 !2010(7),2012,2013,2014(7)
           if(no.eq.7.and.(sumRRR/284*100).gt.104.and. !!! Условие на сумму осадков
     *   (sumR2/145*100).ge.125)BK=BK+1 !2009,2013
```

```
      SKEY=0
      SW=0
      DO 99 J=1,N
      S1=0
      S2=0
      S3=0
      S4=0
      S5=0
      S6=0
      S7=0
      S8=0
      S9=0
      S10=0
      S11=0
          sumR=sumR+w0(J)
      TS1=TS11(J)
      NN=DV(J)
      DO 400 I=1,NN
      TS2=TSS(GI+1)
      DELTA=0.017453*(0.473*(T0+GI)-0.196E-2*(T0+GI)**2-0.407E-5*
     *(T0+GI)**3-0.616)
      A=SIN(0.017453*FI)*SIN(DELTA)
      B=COS(0.017453*FI)*COS(DELTA)
      TZ=12+3.8197*(1.5708-ATAN(-A/B/SQRT(1-(A/B)**2)))
      TV=24-TZ
      S1=S1+DELTA
      S2=S2+A
      S3=S3+B
      S4=S4+TZ
      S5=S5+TV
      A1=-100.*ALOG(AF0)/(TF(NO)**2)
      AFL=EXP(-A1*((TS2-TF(NO))/10)**2)
      A1=-100.*ALOG(0.5)/(TR(NO)**2)
      ARL=EXP(-A1*((TS2-TR(NO))/10)**2)
      DML=DROST(TS2,TOPL(NO),CL)
      DMS=DROST(TS2,TOPS(NO),CS)
      DMR=DROST(TS2,TOPR(NO),CR)
      R1=TS2-TPP(NO)
      IF(R1.LT.0) GOTO 62
      DMP=DROST(R1,TOPP(NO)-TPP(NO),CP)
      GOTO 63
   62 DMP=0
   63 S6=S6+AFL
      S7=S7+ARL
      S8=S8+DML
      S9=S9+DMS
      S10=S10+DMR
      S11=S11+DMP
      GI=GI+1
  400 CONTINUE
      DELTA=S1/DV(J)
      A=S2/DV(J)
```

```
      B=S3/DV(J)
      TZ=S4/DV(J)
      TV=S5/DV(J)
      TAUD=TZ-TV
      AFL=S6/DV(J)
      ARL=S7/DV(J)
      DML=S8/DV(J)
      DMS=S9/DV(J)
      DMR=S10/DV(J)
      DMP=S11/DV(J)
      DM=DML+DMS+DMR+DMP
      BL=DML/DM
      BS=DMS/DM
      BR=DMR/DM
      BP=DMP/DM
      Q=12.66*8.5**1.31+315*(A+B)**2.1
      J0=0.5*Q/(TAUD*60)
      WN=W00(NO,J)
      TP1=16.
      TP2=20.
      TMIN=-2
      TMAX=34
      KSIFL=1.
      IF(TS(J).LT.TP1) GOTO 405
      IF(TS(J).GT.TP2) GOTO 406
      GOTO 466
  405 X=(TS(J)-TMIN)/(TP1-TMIN)
      KSIFL=13.7*SIN(0.0774*X)
      GOTO 466
  406 X=1-((TS(J)-TP2)/(TMAX-TP2))
      KSIFL=0.955*SIN(1.5705*X)
  466 if(no.EQ.1.and.j.eq.1)ksifl=0.25
      if(no.eq.1.and.j.ge.2.and.ksifl.lt.0.35)ksifl=0.35
      if(no.eq.3.and.j.eq.1)ksifl=0.30
          if((no.ge.3).and.(j.ge.6.and.ksifl.lt.0.90))ksifl=0.90
      if(no.eq.5.and.j.eq.1)ksifl=0.35
      if(no.eq.6.and.j.eq.1)ksifl=0.38
      if(no.eq.6.and.j.le.3.and.ksifl.gt.0.85)ksifl=0.85

      if(no.eq.7.and.j.eq.1)ksifl=0.38
      if(no.eq.7.and.j.le.3.and.ksifl.gt.0.85)ksifl=0.85
      if(no.eq.8.and.j.eq.1)ksifl=0.38
      if(no.eq.8.and.j.le.3.and.ksifl.gt.0.7)ksifl=0.7
      if(no.eq.8.and.j.eq.4.and.rast.gt.100.and.ksifl.gt.0.8)ksifl=0.8
      if(no.eq.9.and.j.eq.1)ksifl=0.35
      if(no.eq.9.and.j.le.3.and.ksifl.gt.0.75)ksifl=0.75
      if(j.ge.6.and.ksifl.lt.0.8)ksifl=0.8
      if(ksifl.gt.1)ksifl=1
      GAMF=W0(J)/WN
      IF((NO.EQ.1.OR.NO.EQ.2.OR.NO.EQ.3.OR.NO.EQ.4).AND.       ! NO=1,3  J=1-3
     *(J.EQ.1.OR.J.EQ.2.OR.J.EQ.3))GAMS=aKLI(real(GAMF),DAX1)
cv    2011
```

```
      if(no.eq.3.and.j.eq.3.and.w0(3).lt.2.and.ts(3).gt.12.5)ksifl=0.3
cv     2013
           if(no.eq.3.and.j.eq.3.and.w0(3).gt.15.and.ts(3).gt.10.3)ksifl=1.5
cv     2013
cv      if(no.eq.1.and.j.eq.6.and.w0(6).gt.30)gamf=1.5

      IF((NO.EQ.1.OR.NO.EQ.2.OR.NO.EQ.3.OR.NO.EQ.4).          ! NO=1,3  J=4-6
     *AND.(J.GE.4.AND.J.LE.6))GAMS=aKLI(real(GAMF),DAX2)
      if(no.eq.1.and.j.eq.5.and.w0(j).gt.28.and.rast.gt.45)gams=1.3
      if((no.eq.1).and.(j.eq.5.or.j.eq.6).and.(w0(j).gt.60.and.rast.gt.
     *85))gams=1.3
cv     2013
      if(no.eq.1.and.j.eq.6.and.w0(6).gt.40)gams=1.5
      if(no.eq.3.and.j.eq.5.and.w0(j).gt.50.and.ts(j).lt.8.and.
     *rast.lt.-25)gams=0.85
      if(no.eq.3.and.j.eq.5.and.w0(j).gt.50.and.rast.gt.68)gams=1.4
           if((no.eq.3).and.(j.gt.6.and.gams.lt.0.92))gams=0.92   !NO=3 J>6
      IF((NO.EQ.1.OR.NO.EQ.2.OR.NO.EQ.3.OR.NO.EQ.4).          ! NO=1,3  J=7-8
     *AND.(J.EQ.7.OR.J.EQ.8))GAMS=aKLI(real(GAMF),DAX3)
      if((no.eq.3.and.j.eq.6).and.(w0(5).gt.40.and.
     * w0(6).lt.10))gams=1.3
      if(no.eq.3.and.j.eq.7.and.w0(j).gt.28.and.rast.gt.25)gams=1.15
      if(no.eq.3.and.j.eq.8.and.w0(j).ge.45.and.ts(j).gt.15.5.and.
     *rast.gt.120)gams=1.2
      if(no.eq.3.and.j.eq.8.and.w0(j).gt.40.and.rast.lt.-55)gams=0.8
IF((NO.EQ.5.OR.NO.EQ.6.OR.NO.EQ.7.OR.NO.EQ.8.OR.NO.EQ.9).AND.!NO=5-9 J=1-6
     *(J.GE.1.AND.J.LE.6))GAMS=aKLI(real(GAMF),DAX4)
      if(no.eq.5.and.j.eq.1.and.w0(j).gt.55.and.ts(j).lt.5)gams=0.80
      if(no.eq.5.and.j.eq.5.and.w0(j).gt.35.and.ts(j).lt.10.and.
     *rast.gt.0)gams=0.80
      if(no.eq.5.and.j.eq.1.and.sumoc(3).lt.25.and.w0(j).le.4)gams=0.75
      if((no.eq.5.and.j.eq.6).and.(w0(4).gt.25.and.w0(5).gt.25.and.
     * w0(6).lt.3))gams=1.4
cv----------------Воронежская область-------------------------------
      if(no.eq.6) then
           if(j.eq.6.and.w0(j).gt.40.and.rast.lt.-70)gams=0.85
       if(j.eq.5.and.w0(2).lt.10.and.w0(3).lt.10.and.w0(4).lt.6.and.
     *                                  w0(5).lt.5)gams=0.6
       if(RAST.GT.200)bk=33 !2012, 2013(6)
           if(md.eq.5.and.RAST.GT.160.and.bk.lt.28)bk=28 !2013(5)
           if(sumR1.lt.70)bk=20 !2010
cv       осадки осеннего периода вегетации
           if(sumR1.gt.126.and.sumR1.lt.155.and.bk.lt.32)BK=32 !2008, 2013
      endif
cv-----------------Курская область----------------------------------
      if(no.eq.7) then
       if(j.eq.1.and.w0(j).lt.2)gams=0.75 !2005,2008
       if(j.le.3.and.gams.gt.1)gams=1
       if(j.eq.4.and.w0(j).lt.1)gams=0.7 !2001
       if(j.eq.5.and.w0(j).ge.70.and.ts(j).lt.9)gams=0.75 !с 2001 года нет таких условий
       if(j.eq.6.and.w0(j).gt.39.)GAMS=1.5 !2004, 2013,2014
       if((j.eq.6).and.(w0(5).gt.19.and.w0(6).lt.5))gams=1.2 !2005, 2012
```

```
          endif
cv-----------------Липецкая область--------------------------------
      if(no.eq.8) then
       if(RAST.GT.190)bk=27.5 !2012, 2013(6)
       if(j.eq.1.and.w0(j).ge.52.and.ts(j).lt.5)gams=0.9
       if((j.eq.2.or.j.eq.3).and.(w0(j).lt.5.and.ts(j).gt.10))gams=0.7
       if(j.eq.5.and.w0(j).le.4)gams=0.75
       if((j.eq.5).and.(w0(4).ge.17.and.w0(5).lt.1)) gams=1.5 !2013
            if((j.eq.2).and.(w0(1).gt.11.and.w0(2).lt.1)) gams=1.03 !2003,2013
       if(j.eq.6.and.gams.lt.0.9)gams=0.9 !2002,2003,2007, 2010,2011,2012
       if(j.eq.6.and.w0(4).gt.25.and.w0(5).gt.25.and.w0(6).lt.1)gams=1.2 !2006
       if(j.eq.6.and.w0(j).ge.68.and.ts(j).lt.13.and.rast.lt.-70)
     *                                        gams=0.8
cv       осадки осеннего периода вегетации
            if(sumR1.gt.135.and.BK.lt.27)BK=30 !2007, 2008, 2013(5),2014
      if(sumR1.lt.84.and.sumRRR.lt.230)BK=20  !2010
      if(md.eq.5.and.sumR1.lt.120.and.sumR1.gt.85)BK=24  !2009,2011
          endif
cv-----------------------------------------------------------------------
      if(no.eq.9.and.j.eq.2.and.w0(j).eq.0.and.ts(j).gt.12)gams=0.7
      if(no.eq.9.and.j.eq.3.and.w0(j).ge.15.and.rast.gt.0)gams=1.2
      if(no.eq.9.and.j.eq.6.and.w0(j).gt.30.and.rast.gt.200)gams=1.7
      if(no.eq.9.and.j.eq.6.and.w0(j).gt.30.and.ts(j).lt.20)ksifl=1.7
      IF((NO.GE.5.AND.NO.LE.9).AND.(J.GE.7.AND.J.LE.8))          !NO=5-9 J=7-8
     *GAMS=aKLI(real(GAMF),DAX5)
      if(no.eq.5.and.j.eq.7.and.w0(7).gt.38.)gams=1.7
      if(no.ge.6.and.j.gt.6)gams=1.

      IF((NO.EQ.1).AND.(J.GE.9))GAMS=1.
      IF((NO.EQ.2).AND.(J.GE.9))GAMS=1.
      IF((NO.EQ.3).AND.(J.GE.9))GAMS=1.
      IF((NO.EQ.4).AND.(J.GE.9))GAMS=1.
      IF((NO.EQ.5).AND.(J.GE.9))GAMS=1.
      IF((NO.EQ.6).AND.(J.GE.9))GAMS=1.
      IF((NO.EQ.7).AND.(J.GE.9))GAMS=1.
      IF((NO.EQ.8).AND.(J.GE.9))GAMS=1.
      IF((NO.EQ.9).AND.(J.GE.9))GAMS=1.
      GAMF= GAMS
      KEY=0
      IF(GAMF.GE.1)KEY=1
      goto 555
  555 SKEY=SKEY+KEY
      SW0=0
      IF(W0(J).LT.10)SW0=1
      IF(J.EQ.1.OR.J.EQ.2)SW0=0
      GOTO 666
  666 SW=SW+SW0
      if (i_print.eq.1)
     *     WRITE(6,455) GAMF,W0(J),WN,TS(J),KSIFL,SKEY,SW,TS2,sumR
  455 FORMAT (2X,10F8.2)
      JJ=J0/(1.+0.5*LL)
      F0L=BK*BB*JJ/(BK+BB*JJ)
```

```
   FTL=AFL*F0L*KSIFL*GAMF
   FL=0.68*FTL*LL*TAUD*0.1
   DMM=FL-ARL*(0.015*M+0.28*FL)
   R5=2*TOPP(NO)-TPP(NO)
   V1=0.3*ML*TS1/(R5-2.*TOPL(NO))
   V2=0.3*MS*TS1/(R5-2.*TOPS(NO))
   V3=0.3*MR*TS1/(R5-2.*TOPR(NO))
   IF(TS2.LT.2*TOPL(NO)) V1=0
   IF(TS2.LT.2*TOPS(NO)) V2=0
   IF(TS2.LT.2*TOPR(NO)) V3=0
   ML=ML+(BL*DMM-V1)*DV(J)
   MS=MS+(BS*DMM-V2)*DV(J)
   MR=MR+(BR*DMM-V3)*DV(J)
   MP=MP+(BP*DMM+V1+V2+V3)*DV(J)
   M=ML+MS+MR+MP
   IF((BL*DMM-V1)*DV(J).GE.0) LL=LL+(BL*DMM-V1)*DV(J)/ZL
   IF((BL*DMM-V1)*DV(J).LT.0) LL=LL+(BL*DMM-V1)*DV(J)/(ZL*0.3)
   IF(LL.LT.0) LL=0.001
   J1=J1+1
 99 CONTINUE
   if (i_print.eq.1)
  *     write (6, 450) bk, rast, af0
450 format(f4.1,x,2f7.2)
   J1=J1-1
   RETURN
   END

   SUBROUTINE GARM(N5,K,Y)
   DIMENSION Y(50),YR(50),VES(50),X(50),Y1(20),YB(20)
   COMMON /BL4/ TEN
   INTEGER A,X,X1,VES
   REAL M
   A=1
   DO 4 I=1,N5
   YR(I)=0
  4 VES(I)=0
   N1=N5-K+1
   DO 5 J=1,N1
   X1=A
   X2=0
   K1=A
   DO 7 I=1,K
   X1=X1+X2
   X2=1
   X(I)=X1
   Y1(I)=Y(K1)
  7 K1=K1+1
   CALL OPT(K,X,Y1,YB)
   K2=1
   K3=K-1+A
    DO 10 I=A,K3
   YR(I)=YR(I)+YB(K2)
```

```
   VES(I)=VES(I)+1
10 K2=K2+1
 5 A=A+1
   DO 8 I=1,N5
 8 YR(I)=YR(I)/VES(I)
   B=1.
   WS=0
   M=0
   N2=N5-1
   DO 9 I=1,N2
   M=M+1./(N5-B)
   WS=WS+M*(YR(I+1)-YR(I))/(N5-1)
 9 B=B+1
   TEN=YR(N5)+WS
   RETURN
   END

   SUBROUTINE OPT(K,X,Y1,YB)
   DIMENSION X(50),Y1(20),YB(20)
   INTEGER X
   S1=0
   S2=0
   S3=0
   S4=0
   S5=0
   DO 1 I=1,K
   S1=S1+X(I)
 1 S2=S2+Y1(I)
   S1=S1/K
   S2=S2/K
   DO 2 I=1,K
   R1=X(I)-S1
   R2=Y1(I)-S2
   S3=S3+R1**2
   S4=S4+R2**2
 2 S5=S5+R1*R2
   if ((s3*s4).le.0) then
         rm=0
      else
   RM=S5/SQRT(S3*S4)
     endif
   DO 3 I=1,K
   R=RM*SQRT(S4/K)/SQRT(S3/K)
 3 YB(I)=R*(X(I)-S1)+S2
   RETURN
   END
   SUBROUTINE TNUL(N1,N2)
   COMMON/BL1/T0
   INTEGER T0
   DIMENSION MA(12)
   DATA MA/0,31,59,90,120,151,181,212,243,273,304,334/
   L=MA(N2)+N1
```

```
      T0=L-79
      IF(N2.EQ.3.AND.N1.LE.20) T0=1
      RETURN
      END
      SUBROUTINE DVV(N1,N2,N1V,N2V)
      COMMON/BL2/DV,JC,N
      DIMENSION DV(15),KD(30)
      INTEGER DV
      DATA KD/10,10,11,10,10,8,10,10,11,10,10,10,10,10,11,
     *       10,10,10,10,10,11,10,10,11,10,10,10,10,10,11/
      IF(N1.LE.10) NP=1
      IF(N1.GT.10.AND.N1.LE.20) NP=2
      IF(N1.GT.20) NP=3
      IF(N1V.LE.10) NNP=1
      IF(N1V.GT.10.AND.N1V.LE.20) NNP=2
      IF(N1V.GT.20) NNP=3
      JC=3*(N2-1)+NP
      JCC=3*(N2V-1)+NNP
      N=JCC-JC+1
      DO 1 J=1,N
      DV(J)=KD(JC-1+J)
    1 CONTINUE
      IF(N1.LE.10) DV(1)=10-N1+1
      IF(N1.GT.10.AND.N1.LE.20) DV(1)=20-N1+1
      IF(N1.GT.20) DV(1)=KD(JC)-(N1-20)+1
      IF(N1V.LE.10) DV(N)=N1V
      IF(N1V.GT.10.AND.N1V.LE.20) DV(N)=N1V-10
      IF(N1V.GT.20) DV(N)=N1V-20
      RETURN
      END

      SUBROUTINE KDEK(ND,MD,N1C,N2C)
      COMMON /BL5/KH
      IF(MD.EQ.4.AND.ND.EQ.10) GOTO 1
      IF(MD.EQ.4.AND.ND.EQ.20) GOTO 2
      IF(MD.EQ.4.AND.ND.EQ.30) GOTO 3
      IF(MD.EQ.5.AND.ND.EQ.10) GOTO 4
      IF(MD.EQ.5.AND.ND.EQ.20) GOTO 5
      IF(MD.EQ.5.AND.ND.EQ.31) GOTO 6
      IF(MD.EQ.6.AND.ND.EQ.10) GOTO 7
      IF(MD.EQ.6.AND.ND.EQ.20) GOTO 8
      IF(MD.EQ.6.AND.ND.EQ.30) GOTO 9
      IF(MD.EQ.7.AND.ND.EQ.10) GOTO 10
      IF(MD.EQ.7.AND.ND.EQ.20) GOTO 11
      IF(MD.EQ.7.AND.ND.EQ.31) GOTO 12
      GOTO 50
    1 IF(N2C.EQ.4.AND.N1C.LE.10)KH=1
      GOTO 50
    2 IF(N2C.EQ.4.AND.N1C.LE.10)KH=2
      IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=1
      GOTO 50
    3 IF(N2C.EQ.4.AND.N1C.LE.10)KH=3
```

```
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=2
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=1
  GOTO 50
 4 IF(N2C.EQ.4.AND.N1C.LE.10)KH=4
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=3
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=2
  IF(N2C.EQ.5.AND.N1C.LE.10)KH=1
  GOTO 50
 5 IF(N2C.EQ.4.AND.N1C.LE.10)KH=5
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=4
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=3
  IF(N2C.EQ.5.AND.N1C.LE.10)KH=2
  IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))KH=1
  GOTO 50
 6 IF(N2C.EQ.4.AND.N1C.LE.10)KH=6
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=5
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=4
  IF(N2C.EQ.5.AND.N1C.LE.10)KH=3
  IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))KH=2
  GOTO 50
 7 IF(N2C.EQ.4.AND.N1C.LE.10)KH=7
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=6
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=5
  IF(N2C.EQ.5.AND.N1C.LE.10)KH=4
  IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))KH=3
  GOTO 50
 8 IF(N2C.EQ.4.AND.N1C.LE.10)KH=8
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=7
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=6
  IF(N2C.EQ.5.AND.N1C.LE.10)KH=5
  IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))KH=4
  GOTO 50
 9 IF(N2C.EQ.4.AND.N1C.LE.10)KH=9
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=8
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=7
  IF(N2C.EQ.5.AND.N1C.LE.10)KH=6
  IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))KH=5
  GOTO 50
10 IF(N2C.EQ.4.AND.N1C.LE.10)KH=10
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=9
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=8
  IF(N2C.EQ.5.AND.N1C.LE.10)KH=7
  IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))KH=6
  GOTO 50
11 IF(N2C.EQ.4.AND.N1C.LE.10)KH=11
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=10
  IF(N2C.EQ.4.AND.N1C.GT.20)KH=9
  IF(N2C.EQ.5.AND.N1C.LE.10)KH=8
  IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))KH=7
  GOTO 50
12 IF(N2C.EQ.4.AND.N1C.LE.10)KH=12
  IF(N2C.EQ.4.AND.(N1C.GT.10.AND.N1C.LE.20))KH=11
```

```
      IF(N2C.EQ.4.AND.N1C.GT.20)KH=10
      IF(N2C.EQ.5.AND.N1C.LE.10)KH=9
      IF(N2C.EQ.5.AND.(N1C.GT.10.AND.N1C.LE.20))KH=8
   50 RETURN
      END

      real function aKLI(X,D)
      parameter (magic=1.234)
      real X, D(0:*)
      n=nint(D(0))  !
      if (D(3*n) .eq. magic) goto 1
      do 2 i=1,n-1
    2    D(2*n+i)=(D(n+i+1)-D(n+i))/(D(i+1)-D(i))
      D(3*n)=magic
c-----------------------------------------
    1 continue
      do 3 i=1,n
    3    if (X .LT. D(i)) goto 4
      goto 99

    4 if (i.eq.1) goto 99  !

      i=i-1
      Y=D(n+i) + D(2*n+i)*(X-D(i))
c       Yi    +   Ai  *  (X - Xi)
      aKli = Y
      return

   99 continue
      write(6,*), '*** aKLI: X=', X, ' вне ООФ !'
      stop
      end


!=====================================================================
! программа для формирования файла с результатами для последующего расчета
! оправдываемости урожайности
!
       subroutine opruro(NOBL,KKK,METHOD,DATEPR,PROGNOZ)
       character datepr*10, method*10, eee*6, eee2*3,eee3*3
       OPEN(UNIT=2,ACCESS='APPEND',FILE='opruro.opr')

! пишем в строку число

       write (eee,11) prognoz
   11   format(f6.1)
       do while (index(eee,' ').gt.0)
       eee(index(eee,' '):index(eee,' '))='0'
       end do

       write (eee2,13) nobl
   13   format(i3)
```

```
      do while (index(eee2,' ').gt.0)
      eee2(index(eee2,' '):index(eee2,' '))='0'
      end do

      write (eee3,14) kkk
   14  format(i3)
      do while (index(eee3,' ').gt.0)
      eee3(index(eee3,' '):index(eee3,' '))='0'
      end do

      do while (index(datepr,' ').gt.0)
      datepr(index(datepr,' '):index(datepr,' '))='0'
      end do

c       print *, index(datepr,'20')
c       print *,datepr(4:len(datepr))

      if(index(datepr,'20.').gt.0) then   ! меняем 20-е на 21-е
      datepr='21.'//datepr(4:len(datepr))
      endif

      if(index(datepr,'31.07').gt.0) then   ! меняем 31-е на 1-е
      datepr='01.08'//datepr(6:len(datepr))
      endif

      WRITE(2,101) eee2,eee3,METHOD,DATEPR,eee
  101  FORMAT(a3,',',A3,',"',A10,'",',A10,'",',a6)
      CLOSE(2)
      return
         end
```

****

Расчет урожайности озимой пшеницы в Московской области (фрагменты)

```
      DATA N11C/1/
      DATA N22C/4/
      DATA N11V/22/
      DATA N22V/7/
      DATA SBM/294.6/
      DATA (W00(1,K),K=1,18)/12.,12.,13.,17.,17.,18.,22.,22.,22.,
     *28.,28.,28.,23.,24.,23.,111.,111.,111./
      DATA (TSS(1,K),K=1,18)/1.8,4.9,7.6,10.2,12.2,13.9,15.2,16.2,
     *17.0,17.6,17.9,17.9,17.4,16.3,111.,111.,111.,111./
          OPEN (5, FILE='OPDMOS.DAT')
          READ(5,104)ZAG
      READ(5,108)ND,MD,NG, NGf
          OPEN (6, FILE='OPDMOS.RES')
……
      KSIFL=1.
      IF(TS(J).LT.TP1) GOTO 405
      IF(TS(J).GT.TP2) GOTO 406
```

```
      GOTO 466
  405 X=(TS(J)-TMIN)/(TP1-TMIN)
      KSIFL=13.7*SIN(0.0774*X)
      GOTO 466
  406 X=1-((TS(J)-TP2)/(TMAX-TP2))
      KSIFL=0.955*SIN(1.5705*X)
  466 IF(KSIFL.LT.0.8) KSIFL=0.8
      IF(KSIFL.GT.1) KSIFL=1
      TSS3=TSS2(NO,J)
      WN=W00(NO,J)
      GAMF=W0(J)/WN
      GAMF1=GAMF
      IF(J.EQ.1.OR.J.EQ.2.OR.J.EQ.3.OR.J.EQ.4.OR.J.EQ.5)
     *GAMS=aKLI(real(GAMF),DAX3)
      IF(J.GE.6)GAMS=aKLI(real(GAMF),DAX2)
      GAMF=GAMS
      if (J.eq.1) G1=GAMF1
      if (J.eq.2) G2=GAMF1
      if (J.eq.3) G3=GAMF1
      if (J.eq.4) G4=GAMF1
      if (J.eq.5) G5=GAMF1
      if (J.eq.6) G6=GAMF1
      if (J.eq.7) G7=GAMF1
      if (J.eq.8) G8=GAMF1
      if (J.eq.9) G9=GAMF1
      if (J.eq.10) G10=GAMF1
      if (J.eq.11) G11=GAMF1
           if (J.eq.12) G12=GAMF1

      if (NO.EQ.1) then
CV      2013
      if ((J.EQ.6).AND.(G5.GT.1.5).AND.(G6.GT.4)) GAMF=1.2
       endif
……
**********************************************************************
```

Расчет урожайности озимой пшеницы в Смоленской и Тверской областях (фрагменты)

```
C     4-СМОЛЕНСКАЯ ОБЛАСТЬ
C     5-ТВЕРСКАЯ ОБЛАСТЬ
C     ДАННЫЕ С АПРЕЛЯ ПО СЕНТЯБРЬ
      DIMENSION N11C(5),N22C(5),N11V(5),N22V(5),W00(5,18),
     *SBM(5),TSS(5,18),Y1(5,50),YR(50),STR(39),
     *W0C(15),TSC(15),W0(15),TS(15),DV(15),Y(50),t(15), IG1(70)
     *,IG2(20), S5(5,20), RRR(21), BCC(50)
      CHARACTER*20 OBL
           CHARACTER*57 ZAG
      COMMON /BL1/T0/BL2/DV,JC,N
      COMMON /BL3/MP/BL4/TEN/BL5/KH
      REAL MP
```

```
      integer nobl,kkk
      character datepr*10, method*10
      real prognoz
     INTEGER T0,DV
     DATA N11C/5*1/
     DATA N22C/5*4/
     DATA N11V/6,4,4,31,31/
     DATA N22V/3*8,2*7/
     DATA SBM/213.9,154.6,145.2,180.0,180.0/
     DATA (W00(1,K),K=1,18)/13.,14.,14.,15.,16.,16.,21.,21.,22.,
    *24.,25.,25.,27.,27.,26.,111.,111.,111./
     DATA (W00(2,K),K=1,18)/15.,15.,15.,17.,17.,18.,24.,25.,25.,
    *28.,29.,29.,26.,27.,26.,111.,111.,111./
     DATA (W00(3,K),K=1,18)/13.,13.,13.,16.,16.,17.,24.,24.,24.,
    *27.,28.,28.,27.,26.,26.,111.,111.,111./
     DATA (W00(4,K),K=1,18)/13.,13.,14.,18.,18.,19.,24.,25.,25.,
    *31.,31.,31.,25.,25.,25.,111.,111.,111./
     DATA (W00(5,K),K=1,18)/12.,13.,13.,17.,17.,18.,24.,25.,25.,
    *29.,29.,29.,26.,26.,25.,111.,111.,111./
     DATA (TSS(1,K),K=1,18)/0.7,2.8,4.9,7.7,10.2,11.3,13.6,14.6,
    *15.6,16.0,16.9,16.8,16.5,15.6,111.,111.,111.,111./
     DATA (TSS(2,K),K=1,18)/1.5,3.6,6.3,9.3,11.2,12.7,14.3,15.1,
    *16.1,16.2,17.5,17.0,16.7,15.4,111.,111.,111.,111./
     DATA (TSS(3,K),K=1,18)/2.0,4.0,6.6,9.6,11.5,12.5,14.7,15.2,
    *16.1,16.1,17.2,17.0,16.9,15.9,111.,111.,111.,111./
     DATA (TSS(4,K),K=1,18)/2.1,4.7,7.3,10.5,11.9,12.9,14.9,15.2,
    *16.4,16.2,17.5,16.8,15.6,16.4,111.,111.,111.,111./
     DATA (TSS(5,K),K=1,18)/1.4,3.9,6.6,9.7,11.4,12.4,14.3,15.2,
    *16.2,16.3,17.6,16.9,111.,111.,111.,111.,111.,111./
          OPEN (5, FILE="OPDSZP.DAT")
          READ(5,104)ZAG
     READ(5,108)ND,MD,NG, NGf
     OPEN (6, FILE="OPDSZP.RES")
……….

     SUBROUTINE DMPP(W0,TS,DV,T0,NO,N,AF0,RAST,W00,TSS2,MD,RRR,iPrint)
     DIMENSION W0(15),TS(15),DV(15),TSS(150),W00(5,18),
    *TS11(15),BKK(5),BBB(5),TF(5),TR(5),ZZL(5),TSS2(5,18),
    *TOPL(5),TOPS(5),TOPR(5),TOPP(5),TPP(5),FII(5),RRR(21),
    *AF00(5),gs(5),tks(5),SUMOC(27),TP11(12),TP22(12)
     COMMON /BL3/MP
     INTEGER T0,DV,GI
     REAL DAX1(0:42),DAX2(0:27),DAX3(0:27)
     REAL M,ML,MS,MR,MP,LL,KSIFL,J0,JJ
     DATA TKS/864.1,923.5,932.1,915.7,885.3/
     DATA FII/60.0,57.0,58.0,55.5,55.5/
          DATA TP11/1,3,6,9,11,12,14,15,16,16,17,16/
     DATA TP22/20,20,20,20,20,20,20,20,20,20,20,20/
     DATA VL/0.03/
     DATA VS/0.02/
     DATA VR/0.03/
     DATA SL/0.000544/
```

```
      DATA BKK/25,25,25,20,20/
      DATA BBB/5*581.4/
      DATA CL/0.26/
      DATA CS/0.36/
      DATA CR/0.20/
      DATA CP/0.18/
      DATA AF00/0.50,0.40,0.40,0.40,0.40/
      DATA TF/5*200./
      DATA TR/5*250./
      DATA TOPL/5*220./
      DATA TOPS/5*250./
      DATA TOPR/5*250./
      DATA TOPP/5*542./
      DATA TPP/5*210./
      DATA ZZL/5*55./
      DATA GS/336,351,341,351,296/
      DATA DAX1/14.,
     *     0.,0.5,1.0,1.5,2.0,2.5,3.0,3.5,4.0,4.5,5.0,5.5,
     *     6.0,20.0,
     *     0.93,0.93,1.0,1.0,1.0,1.00,1.00,0.99,0.98,0.97,0.95,
     *     0.85,0.75,0.6,
     *     14*0/
      DATA DAX2/9.,
     *     0.,0.1,0.3,0.5,1.0,2.0,3.0,6.0,50.00,
     *     0.9,0.9,0.95,1.0,1.0,1.0,0.90,0.80,0.60,
     *     9*0/
      DATA DAX3/9.,
     *     0.,0.1,0.3,0.5,1.0,2.0,3.0,6.0,50.00,
     *     0.8,0.85,0.95,1.0,1.0,1.0,0.90,0.80,0.60,
     *     9*0/
      DROST(TS2,TOPT,CC)=(2.3026*(2./TOPT)*10.**(2.-(2./TOPT)*TS2)*
     *1000.*CC)/(1.+10.**(2.-(2./TOPT)*TS2))**2

……

      if (NO.EQ.4) then
CV    2007,2011 (07)
      if ((J.EQ.8).AND.(G6.LT.0.85).AND.(G7.LT.0.35).
     * AND.(G8.GT.1.2)) GAMF=1.9
CV    2015,
      if ((J.EQ.3).AND.(TS(3).GT.10.0)) ksifl=1.2
      endif

……

**********
```

Расчет урожайности озимой пшеницы в Калужской и Тульской областях (фрагменты)

```
      DIMENSION N11C(9),N22C(9),N11V(9),N22V(9),W00(9,18),
     *SBM(9),TSS(9,18),Y1(9,50),YR(50),STR(39),
```

```
*W0C(15),TSC(15),W0(15),TS(15),DV(15),Y(50),t(15), IG1(70)
*,IG2(20), S5(9,20), RRR(21), BCC(50)
 CHARACTER*20 OBL
      CHARACTER*57 ZAG
 COMMON /BL1/T0/BL2/DV,JC,N
 COMMON /BL3/MP/BL4/TEN/BL5/KH
 REAL MP
  integer nobl,kkk
  character datepr*10, method*10
  real prognoz
 INTEGER T0,DV
 DATA N11C/9*1/
 DATA N22C/9*4/ ! ДАННЫЕ С АПРЕЛЯ ПО СЕНТЯБРЬ
 DATA N11V/19,25,20,23,12,9,17,17,17/
 DATA N22V/9*7/
 DATA SBM/190.4,200.9,217.3,244.7,191.9,179.8,
*199.0,230.5,207.5/
 DATA (W00(1,K),K=1,18)/14.,14.,14.,18.,18.,18.,24.,24.,25.,28.,
*29.,28.,11.,11.,11.,111.,111.,111./
 DATA (W00(2,K),K=1,18)/14.,14.,14.,18.,19.,19.,24.,25.,25.,
*30.,31.,30.,11.,11.,11.,111.,111.,111./
 DATA (W00(3,K),K=1,18)/12.,13.,13.,18.,19.,19.,23.,23.,24.,
*29.,30.,29.,11.,11.,11.,111.,111.,111./
 DATA (W00(4,K),K=1,18)/12.,12.,13.,17.,18.,18.,20.,21.,21.,
*26.,27.,26.,11.,11.,11.,111.,111.,111./
 DATA (W00(5,K),K=1,18)/12.,13.,13.,16.,17.,17.,21.,21.,22.,
*23.,23.,22.,11.,11.,11.,111.,111.,111./
 DATA (W00(6,K),K=1,18)/12.,12.,12.,15.,16.,16.,19.,19.,19.,
*21.,22.,21.,11.,11.,11.,111.,111.,111./
 DATA (W00(7,K),K=1,18)/13.,13.,13.,17.,17.,18.,22.,23.,23.,
*26.,26.,25.,11.,11.,11.,111.,111.,111./
 DATA (W00(8,K),K=1,18)/11.,12.,12.,17.,17.,17.,19.,20.,20.,
*23.,23.,23.,11.,11.,11.,111.,111.,111./
 DATA (W00(9,K),K=1,18)/11.,11.,12.,15.,15.,15.,18.,19.,19.,
*22.,23.,22.,11.,11.,11.,111.,111.,111./
 DATA (TSS(1,K),K=1,18)/3.7,6.3,8.6,12.2,13.4,14.3,16.2,16.5,
*17.8,17.3,18.8,18.0,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(2,K),K=1,18)/2.5,5.3,7.8,11.1,12.4,13.4,15.2,15.7,
*17.0,16.7,18.1,17.4,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(3,K),K=1,18)/2.8,5.9,8.4,11.9,13.5,14.4,16.2,16.6,
*18.0,17.7,19.0,18.4,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(4,K),K=1,18)/2.6,5.7,8.2,11.6,13.2,14.2,16.1,16.5,
*17.8,17.6,18.9,18.2,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(5,K),K=1,18)/5.0,7.6,10.1,13.5,15.1,15.7,17.6,18.0,
*19.3,19.2,20.4,19.8,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(6,K),K=1,18)/4.9,8.0,10.5,13.9,15.6,16.2,17.9,18.8,
*20.0,19.9,21.0,20.6,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(7,K),K=1,18)/3.9,6.6,9.2,12.6,14.2,15.0,16.9,17.1,
*18.4,18.1,19.5,18.8,111.,111.,111.,111.,111.,111./
 DATA (TSS(8,K),K=1,18)/3.4,6.8,9.2,12.8,14.5,15.2,16.9,17.7,
*18.9,18.7,20.0,19.3,11.1,11.1,111.,111.,111.,111./
 DATA (TSS(9,K),K=1,18)/3.4,7.0,9.6,13.0,14.8,15.5,17.6,18.2,
```

```
     *19.2,19.1,20.2,19.7,11.1,11.1,111.,111.,111.,111./
          OPEN (5, FILE="OPDCHO.DAT")
          READ(5,104)ZAG
     READ(5,108)ND,MD,NG,NGf
          OPEN (6, FILE="OPDCHO.RES")
……

      SUBROUTINE DMPP(W0,TS,DV,T0,NO,N,AF0,RAST,W00,TSS2,md,RRR,iPrint)
      DIMENSION W0(15),TS(15),DV(15),TSS(150),W00(9,18),
     *TS11(15),BKK(9),BBB(9),TF(9),TR(9),ZZL(9),TSS2(9,18),
     *TOPL(9),TOPS(9),TOPR(9),TOPP(9),TPP(9),FII(9),RRR(21),
     *AF00(9),GS(9),TKS(9),sumoc(27),TP11(12),TP22(12)
      COMMON /BL3/MP
      INTEGER T0,DV,GI,G2
      REAL DAX2(0:27),DAX3(0:27)
      REAL M,ML,MS,MR,MP,LL,KSIFL,J0,JJ
      DATA TKS/909.5,897.4,925.4,946.8,952.5,954.3,
     *942.5,972.2,1006.9/
      DATA FII/53.0,54.5,52.6,54.0,50.5,51.0,51.5,52.5,52.5/
      DATA TP11/1,3,6,9,11,12,14,15,16,16,17,16/
      DATA TP22/22,22,22,22,22,22,22,22,22,22,22,22/
      DATA VL/0.03/
      DATA VS/0.02/
      DATA VR/0.03/
      DATA SL/0.000544/
      DATA BKK/25,20,25,20,25,25,25,25,25/
      DATA BBB/9*581.4/
      DATA CL/0.26/
      DATA CS/0.36/
      DATA CR/0.20/
      DATA CP/0.18/
      DATA AF00/0.45,0.45,0.50,0.50,0.50,0.50,0.50,0.50,0.50/
      DATA TF/9*225./
      DATA TR/9*270./
      DATA TOPL/9*225./
      DATA TOPS/9*250./
      DATA TOPR/9*250./
      DATA TOPP/9*565./
      DATA TPP/9*225./
      DATA ZZL/9*55./
      DATA GS/362,322,326,401,341,381,350,409,399/
      DATA DAX2/9.,
     *     0.,0.1,  0.3,0.5,1.0,2.0,3.0,6.0,50.00,
     *     0.9,0.9,0.95,1.00,1.0,1.0,0.90,0.80,0.60,
     *     9*0/
      DATA DAX3/9.,
     *     0., 0.1,  0.3,0.5, 1.0,2.0,3.0,6.0,50.00,
     *     0.8,0.85,.90, 0.95,1.0,1.0,0.90,0.80,0.60,
     *     9*0/
      DROST(TS2,TOPT,CC)=(2.3026*(2./TOPT)*10.**(2.-(2./TOPT)*TS2)*
     *1000.*CC)/(1.+10.**(2.-(2./TOPT)*TS2))**2
```

```
……
     if (NO.EQ.2) then !КАЛУЖСКАЯ ОБЛАСТЬ
CV     2008
     if ((J.EQ.1).AND.(TS(1).GE.10)) KSIFL=0.5
     if ((J.EQ.2).AND.(TS(1).GE.10).AND.(TS(2).GT.8)) KSIFL=0.5
     endif
……
```

****

Расчет урожайности озимой пшеницы в Владимирской, Ивановской, Костромской, Рязанской и Ярославской областях (фрагменты)

```
C     ОЗИМАЯ ПШЕНИЦА
C     1-ВЛАДИМИРСКАЯ ОБЛАСТЬ
C     2-ИВАНОВСКАЯ ОБЛАСТЬ
C     3-КОСТРОМСКАЯ ОБЛАСТЬ
C     4-РЯЗАНСКАЯ ОБЛАСТЬ
C     5-ЯРОСЛАВСКАЯ ОБЛАСТЬ
C     ДАННЫЕ С АПРЕЛЯ ПО СЕНТЯБРЬ
      DIMENSION N11C(9),N22C(9),N11V(9),N22V(9),W00(9,18),
     *SBM(9),TSS(9,18),Y1(9,50),YR(50),STR(39),
     *W0C(15),TSC(15),W0(15),TS(15),DV(15),Y(50),t(15), IG1(70)
     *,IG2(20), S5(9,20), RRR(21), BCC(50)
      CHARACTER*20 OBL
          CHARACTER*57 ZAG
      COMMON /BL1/T0/BL2/DV,JC,N
      COMMON /BL3/MP/BL4/TEN/BL5/KH
      REAL MP
       integer nobl,kkk
       character datepr*10, method*10
       real prognoz
      INTEGER T0,DV
      DATA N11C/9*1/
      DATA N22C/9*4/
      DATA N11V/25,25,30,25,31,27,21,24,19/
      DATA N22V/9*7/
      DATA SBM/230.0,190.0,170.0,250.0,200.0,
     *206.8,159.9,173.3,219.6/
      DATA (W00(1,K),K=1,18)/12.,12.,13.,16.,17.,17.,22.,22.,22.,27.,
     *27.,26.,111.,111.,111.,111.,111.,111./
      DATA (W00(2,K),K=1,18)/12.,13.,13.,17.,17.,18.,22.,22.,22.,
     *25.,25.,25.,111.,111.,111.,111.,111.,111./
      DATA (W00(3,K),K=1,18)/12.,12.,12.,17.,18.,18.,24.,24.,24.,
     *25.,26.,25.,111.,111.,111.,111.,111.,111./
      DATA (W00(4,K),K=1,18)/11.,12.,12.,16.,16.,17.,18.,19.,19.,
     *24.,24.,24.,111.,111.,111.,111.,111.,111./
      DATA (W00(5,K),K=1,18)/12.,12.,13.,17.,17.,18.,23.,23.,24.,
     *26.,27.,26.,111.,111.,111.,111.,111.,111./
      DATA (W00(6,K),K=1,18)/10.,11.,11.,15.,15.,15.,19.,19.,20.,
     *22.,22.,22.,111.,111.,111.,111.,111.,111./
      DATA (W00(7,K),K=1,18)/10.,11.,11.,15.,15.,15.,20.,20.,20.,
```

```
*22.,22.,22.,111.,111.,111.,111.,111.,111./
 DATA (W00(8,K),K=1,18)/11.,12.,12.,16.,16.,17.,21.,21.,22.,
*25.,25.,24.,111.,111.,111.,111.,111.,111./
 DATA (W00(9,K),K=1,18)/10.,10.,11.,14.,15.,15.,19.,19.,19.,
*23.,23.,23.,111.,111.,111.,111.,111.,111./
 DATA (TSS(1,K),K=1,18)/1.8,5.0,7.6,10.8,12.4,13.3,14.8,16.2,
*17.4,17.4,18.8,18.2,17.8,16.1,15.2,111.,111.,111./
 DATA (TSS(2,K),K=1,18)/1.2,4.3,6.8,10.2,11.8,12.8,14.3,16.0,
*17.1,17.4,18.6,17.8,17.6,15.9,15.0,111.,111.,111./
 DATA (TSS(3,K),K=1,18)/0.4,3.3,5.3,8.9,10.7,11.9,13.4,15.3,
*16.5,17.0,18.1,17.2,16.8,15.0,111.,111.,111.,111./
 DATA (TSS(4,K),K=1,18)/2.4,5.8,8.4,11.7,13.4,14.2,15.8,17.0,
*18.2,18.1,19.3,18.6,18.6,17.1,16.1,111.,111.,111./
 DATA (TSS(5,K),K=1,18)/0.8,3.6,6.0,9.4,11.2,12.2,14.1,15.4,
*16.6,16.8,18.2,17.5,17.2,15.5,14.6,111.,111.,111./
 DATA (TSS(6,K),K=1,18)/0.5,4.3,6.8,10.6,12.2,13.3,14.4,17.0,
*17.8,18.4,19.0,18.4,17.7,16.2,15.3,111.,111.,111./
 DATA (TSS(7,K),K=1,18)/1.9,5.7,8.3,11.9,13.5,14.4,15.6,17.3,
*18.1,18.4,19.3,18.9,18.5,17.2,16.2,111.,111.,111./
 DATA (TSS(8,K),K=1,18)/1.5,5.0,7.5,11.0,12.6,13.6,14.9,16.8,
*17.7,18.2,19.1,18.5,18.0,16.4,15.5,111.,111.,111./
 DATA (TSS(9,K),K=1,18)/1.2,5.1,7.7,11.5,13.3,14.2,15.2,17.2,
*18.1,18.4,19.3,18.8,18.4,16.8,16.0,111.,111.,111./
      OPEN (5, FILE="OPDVV.DAT")
      READ(5,104)ZAG
 READ(5,108)ND,MD,NG, NGf
      OPEN (6, FILE="OPDVV.RES")
```

………………………………………………………………………………

```
 SUBROUTINE DMPP(W0,TS,DV,T0,NO,N,AF0,RAST,W00,TSS2,MD,RRR,iPrint)
 DIMENSION W0(15),TS(15),DV(15),TSS(150),W00(9,18),
*TS11(15),BKK(9),BBB(9),TF(9),TR(9),ZZL(9),TSS2(9,18),
*TOPL(9),TOPS(9),TOPR(9),TOPP(9),TPP(9),FII(9),
*AF00(9),GS(9),TKS(9),SUMOC(27),TP11(12),TP12(12),RRR(21),
*TP22(12),TP23(12),TP13(12),TP33(12),TP14(12),TP44(12),
*TP15(12),TP55(12)
 COMMON /BL3/MP
 INTEGER T0,DV,GI
 REAL DAX1(0:33),DAX2(0:27),DAX3(0:27),DAX4(0:27),DAX5(0:27)
 REAL M,ML,MS,MR,MP,LL,KSIFL,J0,JJ
 DATA TKS/911.3,871.8,849.9,920.2,893.3,
*927.1,948.3,926.6,894.9/
 DATA FII/56.0,57.0,58.0,54.5,57.5,56.6,54.0,56.0,56.0/
      DATA TP11/0,2,6,9,11,12,14,15,16,16,17,16/
 DATA TP12/22,22,22,22,22,22,22,22,22,22,22,22/
 DATA TP22/0,3,6,9,11,12,14,15,16,16,17,16/
 DATA TP23/22,22,22,22,22,22,22,22,22,22,22,22/
      DATA TP13/0,3,6,9,11,12,14,15,16,16,17,16/
 DATA TP33/22,22,22,22,22,22,22,22,22,22,22,22/
      DATA TP14/0,3,6,9,11,12,14,15,16,16,17,16/
 DATA TP44/22,22,22,22,22,22,22,22,22,22,22,22/
      DATA TP15/0,3,6,9,11,12,14,15,16,16,17,16/
```

```
      DATA TP55/5,22,22,22,22,22,22,22,22,22,22,22/
      DATA VL/0.03/
      DATA VS/0.02/
      DATA VR/0.03/
      DATA SL/0.000544/
      DATA BKK/20,20,17,22,22,25,25,25,25/
      DATA BBB/9*581.4/
      DATA CL/0.26/
      DATA CS/0.36/
      DATA CR/0.20/
      DATA CP/0.18/
      DATA AF00/0.45,0.40,0.40,0.50,0.40,0.52,2*0.48,0.55/
      DATA TF/9*200./
      DATA TR/9*250./
      DATA TOPL/9*200./
      DATA TOPS/9*240./
      DATA TOPR/9*240./
      DATA TOPP/9*570./
      DATA TPP/9*235./
      DATA ZZL/9*55./
      DATA GS/356,396,412,347,356,376,351,379,400/
      DATA DAX1/11.,
     *     0.,  0.20,0.3,0.5,1.00,2.00,3.00,4.00,5.00,6.00,10.00,
     *     0.85,0.95,1.0,1.0,1.00, 1.0, 1.00,1.00,0.90,0.80,0.60,
     *     11*0/
      DATA DAX2/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,10.00,
     *     0.80,0.90,1.00,1.0,1.00,1.00,0.90,0.80,0.60,
     *     9*0/
       DATA DAX3/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,10.00,
     *     0.80,0.90,1.00,1.0,1.00,1.00,0.90,0.80,0.60,
     *     9*0/
           DATA DAX4/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,10.00,
     *     0.80,0.90,1.00,1.0,1.00,1.00,0.90,0.80,0.60,
     *     9*0/
           DATA DAX5/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,10.00,
     *     0.80,0.90,1.00,1.0,1.00,1.00,0.90,0.80,0.60,
     *     9*0/
      DROST(TS2,TOPT,CC)=(2.3026*(2./TOPT)*10.**(2.-(2./TOPT)*TS2)*
     *1000.*CC)/(1.+10.**(2.-(2./TOPT)*TS2))**2

……

      if (NO.EQ.1) then
CV    2015
      if((J.EQ.5).AND.(G3.GT.1.3).AND.(G4.GT.1.1).
     * AND.(G5.GT.1.4)) GAMF=1.3
          endif
```

```
      if (NO.EQ.2) then
CV     2015
cv      if((J.EQ.5).AND.(G5.GT.1.0).AND.(TS(5).GE.13.0))  GAMF=1.25
         endif

     if (NO.EQ.3) then
CV     2012
     if((J.EQ.4).AND.(G1.GT.1.5).AND.(G2.GT.1.5).
    * AND.(G3.GT.1.5).AND.(G4.GT.1.5)) GAMF=0.7
CV     2014
     if((J.EQ.3).AND.(G2.GT.1.45).AND.(G3.LT.0.35)) GAMF=1
     if((J.EQ.5).AND.(G4.GT.1.45).AND.(G5.LT.0.35)) GAMF=1

     endif

     if (NO.EQ.5) then
CV     2008
     if ((J.EQ.2).AND.(TS(1).GE.7).AND.(TS(2).GT.6)) KSIFL=0.5
CV     2014
     if((J.EQ.3).AND.(G2.GT.0.55).AND.(G3.LT.0.11)) GAMF=1.
     if((J.EQ.4).AND.(G3.LT.0.11).AND.(G4.GT.1.5)) GAMF=1.5
          if((J.EQ.5).AND.(G4.GT.1.5).AND.(G5.LT.0.3)) GAMF=1.
     endif
```

……

****

Расчет урожайности озимой пшеницы в Республике Татарстан (фрагменты)

```
C     РАСЧЕТ УРОЖАЙНОСТИ ОЗИМОЙ ПШЕНИЦЫ ДЛЯ ТАТАРСТАНА
C     ДАННЫЕ С АПРЕЛЯ ПО СЕНТЯБРЬ
      DIMENSION N11C(1),N22C(1),N11V(1),N22V(1),W00(1,18),
     *SBM(1),TSS(1,18),Y1(1,50),YR(50),STR(39),
     *W0C(15),TSC(15),W0(15),TS(15),DV(15),Y(50),t(15), IG1(70)
     *,IG2(20), S5(1,20), RRR(21), BCC(50)
      CHARACTER*20 OBL
           CHARACTER*57 ZAG
      COMMON /BL1/T0/BL2/DV,JC,N
      COMMON /BL3/MP/BL4/TEN/BL5/KH
      REAL MP
       integer nobl,kkk
       character datepr*10, method*10
       real prognoz
      INTEGER T0,DV
      DATA N11C/1/
      DATA N22C/4/
      DATA N11V/24/
      DATA N22V/7/
      DATA SBM/210.8/
      DATA (W00(1,K),K=1,18)/8.,10.,11.,11.,12.,15.,16.,20.,22.,19.,
     *21.,21.,17.,22.,15.,111.,111.,111./
      DATA (TSS(1,K),K=1,18)/0.6,4.8,7.5,11.3,13.5,14.4,15.0,17.7,
     *18.3,19.1,19.5,19.0,18.4,16.9,111.,111.,111.,111./
```

```
      open (unit=5, file="opd.dat")
      READ(5,104)ZAG
    READ(5,108)ND,MD,NG, NGf
      open (unit=6, file="opd.res")
……….
    REAL M,ML,MS,MR,MP,LL,KSIFL,J0,JJ
    DATA TKS/978.4/
    DATA FII/55.0/
    DATA VL/0.03/
    DATA VS/0.02/
    DATA VR/0.03/
    DATA SL/0.000544/
    DATA BKK/20./
    DATA BBB/581.4/
    DATA CL/0.26/
    DATA CS/0.36/
    DATA CR/0.20/
    DATA CP/0.18/
    DATA AF00/0.48/
    DATA TF/240/
    DATA TR/240/
    DATA TOPL/200/
    DATA TOPS/250/
    DATA TOPR/250/
    DATA TOPP/630/
    DATA TPP/280/
    DATA ZZL/55./
    DATA GS/400/
    DATA DAX1/14.,
   *    0.,0.5,1.0,1.5,2.0,2.5,3.0,3.5,4.0,4.5,5.0,5.5,
   *    6.0,20.0,
   *    0.80,0.95,1.00,1.10,1.20,1.20,1.10,0.98,0.95,0.95,0.95,
   *    0.90,0.85,0.8,
   *    14*0/
    DATA DAX2/9.,
   *    0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
   *    0.90,0.90,1.00,1.05,1.10,1.20,1.10,1.00,0.90,
   *    9*0/
    DATA DAX3/9.,
   *    0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
   *    0.70,0.80,0.96,1.15,1.30,1.20,1.10,1.00,0.80,
   *    9*0/
    DROST(TS2,TOPT,CC)=(2.3026*(2./TOPT)*10.**(2.-(2./TOPT)*TS2)*
   *1000.*CC)/(1.+10.**(2.-(2./TOPT)*TS2))**2
……….
     GAMF=W0(J)/WN
    IF(J.LE.3)GAMS=aKLI(real(GAMF),DAX1)
    if(j.le.2.and.gams.lt.0.95)gams=0.95
    IF(J.GE.4.AND.J.LE.6)GAMS=aKLI(real(GAMF),DAX2)
    if(j.ge.4.and.w0(j).gt.15.and.rast.gt.90)gams=1.25
    IF(J.GE.7.AND.J.LE.8)GAMS=aKLI(real(GAMF),DAX3)
    if(j.eq.1.and.w0(j).lt.1)gams=0.8
```

```
      IF(J.GE.9)GAMS=1.0
      GAMF= GAMS
```

……

****

Расчет урожайности озимой пшеницы в Республике Башкортостан (фрагменты)

```
C     РАСЧЕТ УРОЖАЙНОСТИ ОЗИМЫХ КУЛЬТУР ДЛЯ БАШКИРИИ
C     ОЗИМАЯ ПШЕНИЦА
C     ДАННЫЕ С АПРЕЛЯ ПО СЕНТЯБРЬ
      DIMENSION N11C(1),N22C(1),N11V(1),N22V(1),W00(1,18),
     *SBM(1),TSS(1,18),Y1(1,50),YR(50),STR(39),
     *W0C(15),TSC(15),W0(15),TS(15),DV(15),Y(50),t(15), IG1(70)
     *,IG2(20), S5(1,20), RRR(21), BCC(50)
      CHARACTER*20 OBL
          CHARACTER*57 ZAG
      COMMON /BL1/T0/BL2/DV,JC,N
      COMMON /BL3/MP/BL4/TEN/BL5/KH
      REAL MP
       integer nobl,kkk
       character datepr*10, method*10
       real prognoz
      INTEGER T0,DV
      DATA N11C/1/
      DATA N22C/4/
      DATA N11V/21/
      DATA N22V/7/
      DATA SBM/246.6/
      DATA (W00(1,K),K=1,18)/8.,8.,10.,11.,13.,16.,17.,19.,21.,23.,
     *21.,23.,17.,19.,17.,111.,111.,111./
      DATA (TSS(1,K),K=1,18)/0.2,4.3,7.4,10.5,12.8,13.0,15.7,17.0,
     *17.8,18.4,18.4,17.8,17.5,16.4,14.9,111.,111.,111./
          open (unit=5, file="opdbas.dat")
          READ(5,104)ZAG
      READ(5,108)ND,MD,NG, NGf
          open (unit=6, file="opdbas.res")
```

……

```
      DATA CL/0.26/
      DATA CS/0.36/
      DATA CR/0.20/
      DATA CP/0.18/
      DATA AF00/0.45/
      DATA TF/220/
      DATA TR/240/
      DATA TOPL/200/
      DATA TOPS/230/
      DATA TOPR/230/
      DATA TOPP/540/
      DATA TPP/200/
      DATA ZZL/55/
```

```
      DATA GS/350/
      DATA DAX1/14.,
     *     0.,0.5,1.0,1.5,2.0,2.5,3.0,3.5,4.0,4.5,5.0,5.5,
     *     6.0,20.0,
     *     0.95,0.97,0.98,1.00,1.0,1.00,1.00,0.99,0.98,0.97,0.95,
     *     0.85,0.75,0.6,
     *     14*0/
      DATA DAX2/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
     *     0.80,0.95,1.00,1.00,1.00,1.00,0.90,0.80,0.60,
     *     9*0/
      DROST(TS2,TOPT,CC)=(2.3026*(2./TOPT)*10.**(2.-(2./TOPT)*TS2)*
     *1000.*CC)/(1.+10.**(2.-(2./TOPT)*TS2))**2
……….

      KSIFL=1.
      IF(TS(J).LT.TP1) GOTO 405
      IF(TS(J).GT.TP2) GOTO 406
      GOTO 466
  405 X=(TS(J)-TMIN)/(TP1-TMIN)
      KSIFL=13.7*SIN(0.0774*X)
      GOTO 466
  406 X=1-((TS(J)-TP2)/(TMAX-TP2))
      KSIFL=0.955*SIN(1.5705*X)
  466 IF(KSIFL.GT.1) KSIFL=1
      IF(KSIFL.LT.0.85)KSIFL=0.85
          tss3=tss2(no,j)
      GAMF=W0(J)/WN
      IF(J.EQ.1.OR.J.EQ.2.OR.J.EQ.3.OR.J.EQ.4.OR.J.EQ.5)
     *GAMS= aKLI(real(GAMF),DAX1)
      IF(J.GE.6.AND.J.LE.8)
     *GAMS=aKLI(real(GAMF),DAX2)
      IF(J.EQ.9)GAMS=1.0
      IF(J.EQ.10)GAMS=1.0
      IF(J.EQ.11)GAMS=1.0
      IF(J.EQ.12)GAMS=1.0
      GAMF=GAMS
……….

**********
```

Расчет урожайности озимой пшеницы в областях и республиках Северного Кавказа (фрагменты)

```
C     РАСЧЕТ УРОЖАЙНОСТИ ОЗИМЫХ КУЛЬТУР ДЛЯ СЕВЕРНОГО КАВКАЗА
C     ОЗИМАЯ ПШЕНИЦА
C     1-РЕСПУБЛИКА КАЛМЫКИЯ
C     2-АСТРАХАНСКАЯ ОБЛАСТЬ
C     3-ВОЛГОГРАДСКАЯ ОБЛАСТЬ
C     4-КРАСНОДАРСКИЙ КРАЙ
C     5-СТАВРОПОЛЬСКИЙ КРАЙ
cv    6-РОСТОВСКАЯ ОБЛАСТЬ
C     ДАННЫЕ С 3-ЕЙ ДЕКАДЫ МАРТА ПО СЕНТЯБРЬ
      DIMENSION N11C(6),N22C(6),N11V(6),N22V(6),W00(6,19),
```

```
     *SBM(6),TSS(6,19),Y1(6,50),YR(50),STR(39),
     *W0C(19),TSC(19),W0(27),TS(27),DV(19),Y(50), IG1(70)
     *,IG2(20), S5(6,20), RRR(20), BCC(50)
      CHARACTER*20 OBL
            CHARACTER*57 ZAG
      COMMON /BL1/T0/BL2/DV,JC,N
      COMMON /BL3/MP/BL4/TEN/BL5/KH
      REAL MP
       integer nobl,kkk
       character datepr*10, method*10
       real prognoz
      INTEGER T0,DV
      DATA N11C/6*21/
      DATA N22C/6*3/
      DATA N11V/27,22,4,27,29,29/
      DATA N22V/6,6,7,6,6,6/
      DATA SBM/152.9,145.4,186.3,409.8,292.1,292.1/
      DATA (W00(1,K),K=1,19)/6.7,5.9,5.7,8.4,7.5,10.6,13.3,11.1,12.6,
     *9.6,10.3,9.3,9.8,8.8,8.8,8.4,111.,111.,111./
      DATA (W00(2,K),K=1,19)/7.6,6.2,4.6,6.8,6.4,6.5,8.,7.,8.,7.8,
     *6.5,6.5,6.6,5.6,5.7,7.5,111.,111.,111./
      DATA (W00(3,K),K=1,19)/9.7,7.1,10.4,11.9,10.8,13.2,13.5,13.6,14.1,
     *14.,14.7,13.2,13.8,14.2,13.3,10.8,111.,111.,111./
      DATA (W00(4,K),K=1,19)/16.4,16.6,17.2,18.2,15.8,24.6,22.1,21.3,
     *23.7,24.7,23.6,17.1,18.6,20.3,19.5,26.3,111.,111.,111./
      DATA (W00(5,K),K=1,19)/11.1,12.2,15.4,18.6,16.6,22.2,25.7,25.4,
     *28.1,23.4,24.5,17.5,20.2,21.,17.5,19.2,111.,111.,111./
      DATA (W00(6,K),K=1,19)/10.8,10.6,13.4,14.,14.0,16.,17.7,15.1,17.7,
     *17.6,18.3,16.3,14.3,14.2,12.8,14.5,111.,111.,111./
      DATA (TSS(1,K),K=1,19)/3.8,7.7,10.8,13.0,16.0,18.5,19.3,21.2,22.6,
     *23.7,24.6,25.4,25.5,24.8,24.1,22.6,111.,111.,111./
      DATA (TSS(2,K),K=1,19)/3.0,7.3,10.9,13.1,16.0,18.6,19.4,21.2,22.7,
     *23.5,24.5,25.1,25.0,24.4,23.7,22.1,111.,111.,111./
      DATA (TSS(3,K),K=1,19)/0.7,5.5,9.0,11.4,14.6,16.7,17.2,19.0,20.1,
     *21.2,21.7,20.5,22.4,21.9,21.1,19.8,111.,111.,111./
      DATA (TSS(4,K),K=1,19)/6.1,9.4,11.2,12.7,14.9,16.7,17.6,19.2,20.1,
     *21.4,21.8,23.0,23.3,22.9,22.4,21.5,111.,111.,111./
      DATA (TSS(5,K),K=1,19)/4.1,7.5,9.6,11.3,13.7,15.8,16.4,17.9,19.0,
     *20.1,20.7,22.0,22.2,21.5,21.2,20.1,111.,111.,111./
      DATA (TSS(6,K),K=1,19)/3.0,7.3,10.1,12.2,15.0,17.1,17.7,19.5,20.4,
     *21.8,22.2,23.2,23.3,22.8,22.2,20.9,111.,111.,111./
            open (5, file="opdkav.dat")
            READ(5,104)ZAG
      READ(5,108)ND,MD,NG, NGf
            open (6, file="opdkav.res")
…………………………………………………………………………………

      DATA TKS/1036.2,943.4,976.0,957.5,859.3,956.9/
      data tp11/ 0, 5, 8,10,12,14,16,17,19,20,20/
      data tp22/10,15,15,17,20,21,25,25,30,30,30/
      DATA FII/46.3,46.4,49.0,45.5,45.0,47.2/
      DATA VL/0.03/
```

```
      DATA VS/0.02/
      DATA VR/0.03/
      DATA SL/0.000544/
      DATA BKK/20,20,20,24,22,20./
      DATA BBB/6*581.4/
      DATA CL/0.26/
      DATA CS/0.36/
      DATA CR/0.20/
      DATA CP/0.18/
      DATA AF00/0.40,0.40,0.40,0.50,0.45,0.50/
      DATA TF/260,235,240,240,215,240/
      DATA TR/260,235,240,240,215,240/
      DATA TOPL/250,220,240,225,200,235/
      DATA TOPS/290,260,280,255,240,275/
      DATA TOPR/290,260,280,255,240,275/
      DATA TOPP/675,605,635,610,550,625/
      DATA TPP/310,265,300,265,240,295/
      DATA ZZL/6*55./
      DATA GS/350,350,350,400,400,400/
      DATA DAX1/14.,
     *     0.,0.5,1.0,1.5,2.0,2.5,3.0,3.5,4.0,4.5,5.0,5.5,
     *     6.0,20.0,
     *     0.80,0.90,1.00,1.10,1.10,1.00,0.90,0.80,0.80,0.80,0.80,
     *     0.80,0.80,0.8,
     *     14*0/
      DATA DAX2/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
     *     0.70,0.85,1.00,1.10,1.20,1.10,1.00,0.90,0.80,
     *     9*0/
      DATA DAX3/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,20.00,
     *     0.80,0.95,1.00,1.10,1.10,1.10,1.10,1.00,0.80,
     *     9*0/
      DATA DAX4/13.,
     *     0.,0.02,0.5,1.,1.5,2.,2.5,3.,3.5,4.,5.,6.,20.,
     *     0.7,0.7,0.75,1.20,1.3,1.4,1.4,1.5,1.5,1.3,0.9,0.9,0.7,
     *     13*0/
      DATA DAX5/10.,
     *     0.,0.5,1.,2.,2.5,3.,4.,5.,6.,20.,
     *     0.80,0.85,1.,1.2,1.0,1.,1.,1.,0.80,
     *     10*0/
      DATA DAX6/10.,
     *     0.,0.5,1.,1.5,2.,3.,4.,5.,6.,20.,
     *     0.80,0.90,1.0,1.0,1.0,0.9,0.9,0.9,0.9,0.9,
     *     10*0/
          DATA DAX7/13.,
     *     0.,0.02,0.5,1.,1.5,2.,2.5,3.,3.5,4.,5.,6.,20.,
     *     0.7,0.85,1.,1.20,1.3,1.4,1.4,1.5,1.5,1.3,0.9,0.9,0.7,
     *     13*0/
      DROST(TS2,TOPT,CC)=(2.3026*(2./TOPT)*10.**(2.-(2./TOPT)*TS2)*
     *1000.*CC)/(1.+10.**(2.-(2./TOPT)*TS2))**2
```

……

```
      GAMF=W0(J)/WN
     IF(NO.LE.6.AND.J.EQ.1)GAMS=aKLI(real(GAMF),DAX1)
     if(no.eq.1.and.w0(1).gt.20)gams=1
     if(no.eq.2.and.j.eq.1.and.w0(1).gt.20)gams=1.5
cv     2007
     if(no.eq.2.and.j.eq.1.and.w0(1).lt.0.25)gams=0.1
     if(no.eq.3.and.j.eq.1.and.w0(1).gt.20)gams=1.5
cv     2012
     if(no.eq.2.and.j.eq.1.and.w0(1).gt.15)gams=1.5
CV     2005, 2012, 2013
         if(no.eq.4.and.j.eq.1.and.w0(1).gt.20)gams=2
cv     2005, 2007
     if(no.eq.5.and.j.eq.1.and.w0(1).gt.20)
    *gams=1.5
     If (no.eq.6.and.w0(1).gt.30) gams=1.1

     IF((NO.EQ.1).AND.(J.EQ.2.OR.J.EQ.3.OR.J.EQ.4))GAMS=
    *aKLI(real(GAMF),DAX4)
CV     2007
     if((no.eq.1.and.j.eq.3).and.
    *(TS(1).Lt.4.5.and.TS(2).Lt.5.5.and.TS(3).Lt.9)) KSIFL=0.1
     if((no.eq.1.and.j.eq.2).and.
    *(TS(1).Lt.4.5.and.TS(2).Lt.5.5)) KSIFL=0.1
CV     2008
     if((no.eq.1.and.j.eq.4).and.
    *(w0(1).gt.12.and.w0(2).gt.12.and.w0(3).gt.12.AND.W0(4).GT.12))
    *gams=1
     if((no.eq.1.and.j.eq.3).and.
    *(w0(1).gt.12.and.w0(2).gt.12.and.w0(3).gt.12))
    *gams=1
     if((no.eq.1.and.j.eq.2).and.
    *(w0(1).gt.12.and.w0(2).gt.23))
    *gams=1

     IF((NO.EQ.2).AND.(J.EQ.2.OR.J.EQ.3.OR.J.EQ.4))GAMS=
    *aKLI(real(GAMF),DAX7)
cv     2006
     if((no.eq.2.and.j.eq.3).and.
    *(w0(1).lt.2.and.w0(2).lt.5.and.w0(3).lt.6)) gams=0.2
cv     2007
     if((no.eq.2.and.j.eq.2).and.
    *(w0(1).lt.0.25.and.w0(2).lt.3)) gams=0.1
cv     2010
     if((no.eq.2.and.j.eq.2).and.
    *(w0(1).lt.3.and.w0(2).gt.18)) gams=1
cv     2011
     if((no.eq.2.and.j.eq.3).and.
    *(w0(2).lt.10.and.w0(3).gt.15)) gams=1

     IF((NO.eq.3.OR.no.eq.6).AND.(J.EQ.2.OR.J.EQ.3.OR.J.
    *EQ.4))GAMS=aKLI(real(GAMF),DAX2)
```

```
      IF((NO.EQ.4.or.no.eq.5).AND.(J.GE.2.AND.J.LE.4))GAMS=aKLI
     *(real(GAMF),DAX6)
CV     2008,2012
      if(no.eq.4.and.j.eq.2.and.w0(j).ge.20.and.sumoc(4).lt.120)gams=2
cv     2013
      if(no.eq.4.and.j.eq.2.and.w0(1).ge.20.and.w0(2).lt.5)gams=1.5

cv      2012
      if((no.eq.5.and.j.eq.2).and.
     *(w0(1).gt.14.and.w0(2).lt.5)) gams=1.2
cv     2009
      if(no.eq.5.and.j.eq.4.and.w0(j).lt.4)gams=0.55
      IF(NO.LE.2.AND.J.ge.5)GAMS=aKLI(real(GAMF),DAX5)
CV     2009
      if(no.eq.1.and.j.ge.5.and.gams.gt.1)gams=1
cv     2010
      if((no.eq.2.and.j.eq.5).and.
     *(w0(4).eq.0.and.w0(5).lt.3)) gams=0.5
cv      2010
      if((no.eq.1.and.j.eq.5).and.
     *(w0(4).lt.1.5.and.w0(5).lt.2.6)) gams=0.5

      IF((NO.GE.3.AND.NO.LE.6).
     *     AND.(J.ge.5.and.J.le.7))GAMS=aKLI(real(GAMF),DAX3)
cv     2010
      if((no.eq.3).and.(j.eq.5).and.(w0(5).lt.5.and.ts(5).
     *gt.13))gams=0.55
cv      2005
       if((no.eq.6.and.j.eq.6).and.
     *(w0(4).gt.15.and.w0(5).gt.26.and.w0(6).gt.16)) gams=1.4
      if((NO.EQ.3.OR.NO.EQ.4.OR.NO.EQ.5.OR.NO.EQ.6).and.(j.ge.8))gams=1
      GAMF= GAMS
……

C     РАСЧЕТ УРОЖАЙНОСТИ ОЗИМЫХ КУЛЬТУР ДЛЯ СЕВЕРНОГО КАВКАЗА
C     ОЗИМАЯ ПШЕНИЦА
C     1-РЕСПУБЛИКА АДЫГЕЯ
C     2-РЕСПУБЛИКА ДАГЕСТАН
C     3-КАБАРДИНО-БАЛКАРСКАЯ РЕСПУБЛИКА
C     4-КАРАЧАЕВО-ЧЕРКЕС.РЕСПУБЛИКА
C     5-РЕСПУБЛИКА СЕВ-ОСЕТИЯ
C     6-РЕСПУБЛИКА ИНГУШЕТИЯ
C     ДАННЫЕ С 3-ЕЙ ДЕКАДЫ МАРТА ПО СЕНТЯБРЬ
      DIMENSION N11C(6),N22C(6),N11V(6),N22V(6),W00(6,19),
     *SBM(6),TSS(6,19),Y1(6,50),YR(50),STR(39),
     *W0C(19),TSC(19),W0(19),TS(19),DV(19),Y(50), IG1(70)
     *,IG2(20), S5(6,20), RRR(20), BCC(50)
      CHARACTER*20 OBL
          CHARACTER*57 ZAG
      COMMON /BL1/T0/BL2/DV,JC,N
      COMMON /BL3/MP/BL4/TEN/BL5/KH
```

```
      REAL MP
!!!!!-------------------------------------------------
       integer nobl,kkk
       character datepr*10, method*10
       real prognoz
!!!!!-------------------------------------------------
      INTEGER T0,DV
      DATA N11C/6*21/
      DATA N22C/6*3/
      DATA N11V/28,5,30,8,3,2/
      DATA N22V/6,7,6,7,7,7/
      DATA SBM/266.2,195.0,317.7,262.7,250.2,214.1/
      DATA (W00(1,K),K=1,19)/20.3,17.7,18.0,22.8,19.2,30.1,23.6,
     *26.0,31.7,23.4,27.9,23.2,25.6,111.,111.,111.,111.,111.,111./
      DATA (W00(2,K),K=1,19)/8.,10.,10.,11.,16.,17.,17.,20.,21.,
     *20.,18.,17.,17.,11.,11.,11.,111.,111.,111./
      DATA (W00(3,K),K=1,19)/12.3,19.7,18.2,20.6,25.3,26.8,31.5,30.6,
     *31.9,27.8,27.2,19.8,23.3,111.,111.,111.,111.,111.,111./
      DATA (W00(4,K),K=1,19)/11.1,14.9,17.1,22.0,21.0,32.8,
     *32.5,30.7,33.4,25.0,33.1,23.4,26.3,18.0,111.,111.,111.,111.,111./
      DATA (W00(5,K),K=1,19)/18.8,15.1,21.8,27.1,30.1,33.3,42.5,40.4,
     *41.4,38.1,35.4,26.0,29.3,11.,11.,11.,111.,111.,111./
      DATA (W00(6,K),K=1,19)/11.5,10.1,13.3,17.6,20.1,22.3,30.3,28.3,
     *29.,27.5,26.8,24.9,21.4,111.,111.,111.,111.,111.,111./
      DATA (TSS(1,K),K=1,19)/6.8,10.2,11.6,12.9,15.0,16.7,17.5,18.8,
     *19.6,20.9,21.3,22.9,22.6,111.,111.,111.,111.,111.,111./
      DATA (TSS(2,K),K=1,19)/5.2,7.0,9.1,11.5,14.0,16.3,18.2,19.7,20.9,
     *21.9,22.7,23.4,23.8,111.,111.,111.,111.,111.,111./
      DATA (TSS(3,K),K=1,19)/4.1,7.3,9.6,11.1,13.4,15.6,16.1,17.5,18.7,
     *19.5,20.7,21.4,21.5,111.,111.,111.,111.,111.,111./
      DATA (TSS(4,K),K=1,19)/4.4,7.7,9.7,11.1,13.6,15.4,15.9,17.2,
     *18.2,19.4,19.7,21.0,21.2,111.,111.,111.,111.,111.,111./
      DATA (TSS(5,K),K=1,19)/4.8,7.8,10.1,11.5,13.8,16.1,16.6,17.8,19.3,
     *20.1,20.7,21.8,22.0,111.,111.,111.,111.,111.,111./
      DATA (TSS(6,K),K=1,19)/5.1,8.3,10.7,12.4,14.7,17.2,17.5,18.8,20.2,
     *21.1,21.8,23.0,23.2,111.,111.,111.,111.,111.,111./
          open (unit=5, file="opdkav1.dat")
          READ(5,104)ZAG
      READ(5,108)ND,MD,NG, NGf
          open (unit=6, file="opdkav1.res")
……….……….……….……….……….……….……….……….……….……….……….……

      SUBROUTINE DMPP(W0,TS,DV,T0,NO,N,AF0,RAST,W00,TSS2,MD,RRR,i_print)
      DIMENSION W0(27),TS(27),DV(19),TSS(150),W00(6,19),TSS2(6,19),
     *TS11(19),BKK(6),BBB(6),TF(6),TR(6),ZZL(6),
     *TOPL(6),TOPS(6),TOPR(6),TOPP(6),TPP(6),FII(6),
     *AF00(6),gs(6),tks(6),tp11(13),tp22(13),RRR(20),SUMOC(27)
      COMMON /BL3/MP
      INTEGER T0,DV,GI,G2
      REAL DAX1(0:42),DAX2(0:27),DAX3(0:27),DAX4(0:39),DAX5(0:30),
     *DAX6(0:30)
      REAL M,ML,MS,MR,MP,LL,KSIFL,J0,JJ
```

```
      DATA TKS/982.5,1039.9,849.1,960.5,939.7,1006.2/
      data tp11/ 3,10,11,11,12,14,14,17,19,20,20,20,20/
      data tp22/10,16,18,18,20,21,25,25,30,30,30,30,30/
      DATA FII/44.5,43.5,43.5,43.5,43.5,43.5/
      DATA VL/0.03/
      DATA VS/0.02/
      DATA VR/0.03/
      DATA SL/0.000544/
      DATA BKK/21,18,22,18,18.5,18./
      DATA BBB/6*581.4/
      DATA CL/0.26/
      DATA CS/0.36/
      DATA CR/0.20/
      DATA CP/0.18/
      DATA AF00/0.52,0.50,0.50,0.50,0.52,0.48/
      DATA TF/245,260,210,240,240,250/
      DATA TR/245,260,210,240,240,250/
      DATA TOPL/225,230,190,220,210,220/
      DATA TOPS/240,280,235,270,260,275/
      DATA TOPR/240,280,235,270,260,275/
      DATA TOPP/630,660,540,635,600,635/
      DATA TPP/280,280,230,270,260,270/
      DATA ZZL/6*55./
      DATA GS/380,380,380,380,380,380/
      DATA DAX1/14.,
     *     0.,0.5,1.0,1.5,2.0,2.5,3.0,3.5,4.0,4.5,5.0,5.5,
     *     6.0,20.0,
     *     0.85,0.95,1.,1.,0.97,0.95,0.90,0.80,0.80,0.80,0.80,
     *     0.80,0.80,0.8,
     *     14*0/
      DATA DAX2/9.,
     *     0.,  0.50,1.00,1.50,2.00,3.00,4.00,5.00,20.00,
     *     0.90,0.95,1.10,1.30,1.20,1.05,1.00,0.90,0.80,
     *     9*0/
      DATA DAX3/9.,
     *     0.,0.50,1.00,1.50,2.00,3.00,4.00,5.00,20.00,
     *     0.82,0.95,1.00,1.05,1.05,1.00,1.10,1.00,0.80,
     *     9*0/
      DATA DAX4/13.,
     *     0.,0.02,0.5,1.,1.5,2.,2.5,3.,3.5,4.,5.,6.,20.,
     *     0.85,0.87,0.95,1.05,0.95,0.9,0.9,0.9,0.9,0.9,0.9,0.9,0.7,
     *     13*0/
      DATA DAX5/10.,
     *     0.,0.5,1.,2.,2.5,3.,4.,5.,6.,20.,
     *     0.85,0.95,1.05,1.05,1.,1.,1.,1.,0.80,
     *     10*0/
      DATA DAX6/10.,
     *     0.,0.5,1.,1.5,2.,3.,4.,5.,6.,20.,
     *     0.98,0.98,1.,0.95,0.95,0.95,0.95,0.95,0.95,0.9,
     *     10*0/
```

```
      IF(NO.LE.6.AND.J.EQ.1)GAMS=aKLI(real(GAMF),DAX1)
      if(no.eq.1.and.j.eq.1.and.w0(j).lt.8)gams=0.5
      if(no.eq.1.and.j.eq.1.and.w0(j).gt.25)gams=1.6

cv     2005,2007
      if(no.eq.4.and.j.eq.1.and.w0(j).gt.20)gams=1.1
      if(no.eq.4.and.j.eq.1.and.gams.lt.0.93)gams=0.93

      IF((NO.EQ.1.OR.NO.EQ.2).AND.(J.EQ.2.OR.J.EQ.3.OR.J.EQ.4))GAMS=
     *aKLI(real(GAMF),DAX4)
      if(no.eq.1.and.j.eq.4.and.w0(j).gt.50.and.ts(j).lt.14)gams=0.9
cv    2009
      if(no.eq.1.and.j.eq.4.and.ts(1).lt.9.and.ts(2).lt.10.
     *and.ts(3).lt.9.and.ts(4).lt.11)ksifl=0.6

      if(no.eq.2.and.j.eq.3.and.w0(j).le.1.and.ts(j).gt.11)gams=0.8
cv     2008
      if(no.eq.2.and.j.eq.4.and.w0(3).ge.19.and.w0(4).EQ.0)gams=1.5

      IF((NO.EQ.3.OR.NO.EQ.4.OR.NO.EQ.5.OR.NO.EQ.6).AND.
     *(J.EQ.2.OR.J.EQ.3.OR.J.EQ.4))GAMS=aKLI(real(GAMF),DAX2)
      if((no.eq.5).and.(j.ge.2.and.j.le.4).and.(w0(j).gt.32))gams=1.05
      if(no.eq.3.and.j.eq.4.and.w0(j).gt.60.and.ts(j).lt.15)gams=0.95
      if((no.eq.3.and.j.eq.4).and.(w0(j).gt.24.and.w0(j).lt.60).and.
     * (ts(j).gt.14))gams=1.3
      if(no.eq.4.and.j.eq.4.and.w0(j).gt.40)gams=0.95
cv     2008
      if(no.eq.3.and.j.eq.2.and.w0(1).lt.8.and.w0(2).gt.25)gams=1.7
cv     2007
      if(no.eq.4.and.j.eq.4.and.ts(4).lt.7)ksifl=1
cv    2010
      if(no.eq.4.and.j.eq.4.and.w0(1).ge.12.and.w0(2).gt.15.
     *and.w0(3).gt.15.and.w0(4).gt.20)gamf=1.5
cv    2010
      if(no.eq.5.and.j.eq.4.and.w0(4).gt.50)gams=1
cv     2008
      if(no.eq.5.and.j.eq.2.and.w0(1).lt.4.and.w0(2).gt.25)gams=1.7

cv    2015
      if(no.eq.1.and.j.eq.3.and.w0(2).ge.35.and.w0(3).ge.30) gams=1.6
cv    2016
      if(no.eq.1.and.j.eq.3.and.w0(3).ge.30.and.TS(3).ge.15) gams=1.3

      IF((NO.EQ.1.OR.NO.EQ.2.OR.NO.EQ.4.OR.NO.EQ.5.OR.NO.EQ.6).
     *AND.(J.GE.5.AND.J.LE.6))GAMS=aKLI(real(GAMF),DAX5)
cv    2008
      if(no.eq.1.and.j.eq.6.and.ts(5).lt.12.and.ts(6).lt.15)ksifl=1.5
cv        2008
      if(no.eq.2.and.j.eq.6.and.w0(5).gt.28.and.w0(6).lt.3)gams=1.5
cv    2010
      if(no.eq.2.and.j.eq.5.and.ts(3).lt.10.5.and.ts(4).lt.10.5.
```

```
     *and.ts(5).lt.13.3)ksifl=0.5
cv   2008
     if(no.eq.5.and.j.eq.5.and.w0(4).lt.10.and.w0(5).gt.65)gams=1.7

     IF((NO.eq.3).AND.(J.ge.5.and.J.le.6))GAMS=aKLI(real(GAMF),DAX3)
     if(no.eq.3.and.j.eq.5.and.w0(j).gt.40)gams=1
cv   2008
     if(no.eq.3.and.j.eq.5.and.w0(4).lt.7.and.w0(5).gt.50)gams=1.7

     if(no.eq.4.and.j.eq.5.and.w0(j).ge.45.and.rast.lt.-15.and.ts(j).
    *lt.9)gams=0.9
     if(no.eq.2.and.j.le.6.and.w0(j).gt.30)gams=1.1

     IF(J.ge.7)GAMS=aKLI(real(GAMF),DAX6)
cv   2013
     if(no.eq.5.and.j.eq.7.and.w0(6).gt.60.and.w0(7).gt.40)gams=0.5

     if(no.eq.2.and.j.eq.8.and.w0(J).lt.8)gams=0.95
     if(j.gt.8)gams=1
     if(no.eq.4.and.j.ge.8)gams=1
     if(no.eq.4.and.j.eq.8.and.w0(j).le.10)gams=0.85
     if(no.eq.4.and.j.eq.9.and.w0(j).le.2)gams=0.9
c         2016
     if(no.eq.5.and.SUMR2/98*100.ge.130)BK=21

**********************************************************************
```

Расчет урожайности озимой пшеницы в областях Приволжья (фрагменты)

```
     INTEGER T0,DV
     DATA N11C/5*1/
     DATA N22C/5*4/
     DATA N11V/18,14,19,11,11/
     DATA N22V/5*7/
     DATA SBM/206.,170.0,172.0,150.0,169.0/
     DATA (W00(1,K),K=1,18)/9.,10.,11.,11.,13.,14.,15.,20.,22.,
    *20.,21.,22.,15.,20.,15.,111.,111.,111./
     DATA (W00(2,K),K=1,18)/9.,8.,10.,9.,10.,12.,13.,18.,21.,
    *16.,16.,18.,12.,15.,13.,111.,111.,111./
     DATA (W00(3,K),K=1,18)/10.,11.,13.,14.,16.,16.,16.,19.,21.,
    *24.,24.,21.,17.,20.,15.,111.,111.,111./
     DATA (W00(4,K),K=1,18)/8.,7.,10.,8.,10.,12.,12.,14.,16.,
    *16.,14.,14.,11.,13.,11.,111.,111.,111./
     DATA (W00(5,K),K=1,18)/8.,8.,11.,11.,11.,14.,11.,14.,18.,
    *15.,15.,16.,13.,14.,11.,111.,111.,111./
     DATA (TSS(1,K),K=1,18)/1.8,6.0,8.5,12.1,14.1,14.8,15.9,18.0,
    *18.7,19.2,19.9,19.4,18.9,17.4,111.,111.,111.,111./
     DATA (TSS(2,K),K=1,18)/1.8,6.4,9.3,12.8,15.1,15.8,16.6,19.0,
    *19.4,20.3,20.6,20.4,20.0,18.6,111.,111.,111.,111./
     DATA (TSS(3,K),K=1,18)/2.0,5.9,8.5,12.2,13.9,14.6,16.0,17.5,
    *18.3,18.6,19.4,19.0,18.7,17.4,111.,111.,111.,111./
     DATA (TSS(4,K),K=1,18)/1.0,6.0,9.6,12.7,15.2,16.2,17.0,19.6,
    *20.2,21.3,21.2,21.2,20.7,19.4,111.,111.,111.,111./
```

```
      DATA (TSS(5,K),K=1,18)/3.3,7.5,10.3,13.7,15.9,16.6,17.9,19.8,
     *20.5,21.0,21.7,21.6,21.1,20.0,111.,111.,111.,111./
          open (5, file="opdprv.dat")
          READ(5,104)ZAG
      READ(5,108)ND,MD,NG, NGf
          open (unit=6, file='opdprv.res')
……

      DATA TKS/952.0,970.2,944.2,939.2,1010.3/
      DATA FII/54.0,53.2,53.0,52.0,52.0/
      DATA VL/0.03/
      DATA VS/0.02/
      DATA VR/0.03/
      DATA SL/0.000544/
      DATA BKK/16,16,16,16,16/
      DATA BBB/5*581.4/
      DATA CL/0.26/
      DATA CS/0.36/
      DATA CR/0.20/
      DATA CP/0.18/
      DATA AF00/0.46,0.46,0.46,0.46,0.5/
          DATA TP11/1,4,8,8,9,10,11,15,17,17,18/
      DATA TP22/22,22,22,22,22,22,22,22,22,22,22/
      DATA TP33/1,4,8,8,9,10,11,15,17,17,18/
      DATA TP44/22,22,22,22,22,22,22,22,22,22,22/
      DATA TP99/1,4,8,8,9,10,11,15,17,17,18/
      DATA TP00/22,22,22,22,22,22,22,22,22,22,22/
      DATA TF/230,240,240,220,260/
      DATA TR/230,240,240,220,260/
      DATA TOPL/200,200,220,150,230/
      DATA TOPS/260,240,260,220,280/
      DATA TOPR/260,240,260,220,280/
      DATA TOPP/620,610,570,570,665/
      DATA TPP/290,260,200,200,320/
      DATA ZZL/5*55./
      DATA GS/400,379,352,320,322/
      DATA DAX1/14.,
     *     0.,0.5,1.0,1.5,2.0,2.5,3.0,3.5,4.0,4.5,5.0,5.5,
     *     6.0,50.0,
     *     0.80,0.95,1.00,1.10,1.20,1.20,1.10,0.98,0.95,0.95,0.95,
     *     0.90,0.85,0.8,
     *     14*0/
      DATA DAX2/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,50.00,
     *     0.85,1.00,1.00,1.10,1.10,1.10,1.10,1.00,0.90,
     *     9*0/
      DATA DAX3/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,50.00,
     *     0.70,0.80,1.00,1.15,1.30,1.20,1.10,1.00,0.80,
     *     9*0/
      DATA DAX4/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,50.00,
```

```
     *     0.85,1.00,1.00,1.05,1.20,1.10,1.00,0.80,0.60,
     *     9*0/
      DATA DAX5/9.,
     *     0.,0.50,1.00,2.00,3.00,4.00,5.00,6.00,50.00,
     *     0.85,1.00,1.00,1.00,1.05,1.00,0.95,0.80,0.60,
     *     9*0/
      DROST(TS2,TOPT,CC)=(2.3026*(2./TOPT)*10.**(2.-(2./TOPT)*TS2)*
     *1000.*CC)/(1.+10.**(2.-(2./TOPT)*TS2))**2
……….

      if(no.eq.1.and.md.eq.5.and.rast.gt.100.and.sumoc(5).lt.45)af0=0.4
      if(no.eq.1.and.md.eq.6.and.rast.gt.159.and.sumoc(5).lt.45)af0=0.4
          if(no.eq.3.and.rast.gt.100.and.sumoc(5).lt.25)af0=0.52
          if(no.eq.5.and.rast.gt.100.and.sumoc(5).gt.40)af0=0.58
      if(no.eq.4.and.sumoc(5).gt.60)bk=18
      if(no.eq.5.and.rast.gt.100)bk=18
      if(no.eq.4.and.rast.gt.200)bk=18
……….

      if (NO.EQ.1) then
C          2013
      if ((j.eq.3).and.(G2.LT.0.1).and.(G3.GT.1.75)) GAMF=1.2
          if ((j.eq.4).and.(G3.GT.1.75).and.(G4.GT.0.75)) GAMF=1.5
        endif

      if (NO.EQ.2) then
C          2013
      if ((j.eq.4).and.(G3.GT.1.75).and.(G4.GT.1)) GAMF=2
           endif

      if (NO.EQ.3) then
C          2013
      if ((j.eq.3).and.(G3.GT.2)) GAMF=2.5
          if ((j.eq.4).and.(G3.GT.2).and.(G4.LT.0.15)) GAMF=2
        endif
      if (NO.EQ.5) then
CV        2010,2011
      if ((J.EQ.3).AND.(G3.LT.0.2))GAMF=0.3

……….

**********************************************************************
```

Расчет урожайности озимой пшеницы в областях и республиках Верхней Волги (фрагменты)

```
      DATA N11C/9*1/
      DATA N22C/9*4/
      DATA N11V/25,25,30,20,31,27,21,24,19/
      DATA N22V/9*7/
      DATA SBM/194.7,147.4,199.0,177.8,165.5,
     *180.0,250.0,230.0,220.0/
      DATA (W00(1,K),K=1,18)/12.,12.,13.,16.,17.,17.,22.,22.,22.,27.,
```

```
     *27.,26.,111.,111.,111.,111.,111.,111./
      DATA (W00(2,K),K=1,18)/12.,13.,13.,17.,17.,18.,22.,22.,22.,
     *25.,25.,25.,111.,111.,111.,111.,111.,111./
      DATA (W00(3,K),K=1,18)/12.,12.,12.,17.,18.,18.,24.,24.,24.,
     *25.,26.,25.,111.,111.,111.,111.,111.,111./
      DATA (W00(4,K),K=1,18)/11.,12.,12.,16.,16.,17.,18.,19.,19.,
     *24.,24.,24.,111.,111.,111.,111.,111.,111./
      DATA (W00(5,K),K=1,18)/12.,12.,13.,17.,17.,18.,23.,23.,24.,
     *26.,27.,26.,111.,111.,111.,111.,111.,111./
      DATA (W00(6,K),K=1,18)/10.,11.,11.,15.,15.,15.,19.,19.,20.,
     *22.,22.,22.,111.,111.,111.,111.,111.,111./
      DATA (W00(7,K),K=1,18)/10.,11.,11.,15.,15.,15.,20.,20.,20.,
     *22.,22.,22.,111.,111.,111.,111.,111.,111./
      DATA (W00(8,K),K=1,18)/11.,12.,12.,16.,16.,17.,21.,21.,22.,
     *25.,25.,24.,111.,111.,111.,111.,111.,111./
      DATA (W00(9,K),K=1,18)/10.,10.,11.,14.,15.,15.,19.,19.,19.,
     *23.,23.,23.,111.,111.,111.,111.,111.,111./
      DATA (TSS(1,K),K=1,18)/1.8,5.0,7.6,10.8,12.4,13.3,14.8,16.2,
     *17.4,17.4,18.8,18.2,17.8,16.1,15.2,111.,111.,111./
      DATA (TSS(2,K),K=1,18)/1.2,4.3,6.8,10.2,11.8,12.8,14.3,16.0,
     *17.1,17.4,18.6,17.8,17.6,15.9,15.0,111.,111.,111./
      DATA (TSS(3,K),K=1,18)/0.4,3.3,5.3,8.9,10.7,11.9,13.4,15.3,
     *16.5,17.0,18.1,17.2,16.8,15.0,111.,111.,111.,111./
      DATA (TSS(4,K),K=1,18)/2.4,5.8,8.4,11.7,13.4,14.2,15.8,17.0,
     *18.2,18.1,19.3,18.6,18.6,17.1,16.1,111.,111.,111./
      DATA (TSS(5,K),K=1,18)/0.8,3.6,6.0,9.4,11.2,12.2,14.1,15.4,
     *16.6,16.8,18.2,17.5,17.2,15.5,14.6,111.,111.,111./
      DATA (TSS(6,K),K=1,18)/0.5,4.3,6.8,10.6,12.2,13.3,14.4,17.0,
     *17.8,18.4,19.0,18.4,17.7,16.2,15.3,111.,111.,111./
      DATA (TSS(7,K),K=1,18)/1.9,5.7,8.3,11.9,13.5,14.4,15.6,17.3,
     *18.1,18.4,19.3,18.9,18.5,17.2,16.2,111.,111.,111./
      DATA (TSS(8,K),K=1,18)/1.5,5.0,7.5,11.0,12.6,13.6,14.9,16.8,
     *17.7,18.2,19.1,18.5,18.0,16.4,15.5,111.,111.,111./
      DATA (TSS(9,K),K=1,18)/1.2,5.1,7.7,11.5,13.3,14.2,15.2,17.2,
     *18.1,18.4,19.3,18.8,18.4,16.8,16.0,111.,111.,111./
          open (5, file="opdvv.dat")
          READ(5,104)ZAG
      READ(5,108)ND,MD,NG, NGf
          open (6, file="opdvv.res")
……
          IF(NO.EQ.6) THEN
      IF(J.LE.5.AND.KSIFL.LT.0.9) KSIFL=0.9
          IF(J.LE.5.AND.KSIFL.GT.1.05) KSIFL=1.0
      IF(J.GE.6) KSIFL=1

      IF(J.LE.5.AND.GAMF.LT.0.8) GAMF=0.8
          IF(J.LE.5.AND.GAMF.GT.1.05) GAMF=1.0
      IF(J.EQ.5.AND.W0(5).GT.20) GAMF=1.2
      IF(J.GE.6) GAMF=1
      ENDIF
```

```
      IF(NO.EQ.7) THEN
    IF(J.LE.5.AND.KSIFL.LT.0.9) KSIFL=0.9
      IF(J.LE.5.AND.KSIFL.GT.1.05) KSIFL=1.0
    IF(J.GE.6) KSIFL=1

    IF(J.LE.5.AND.GAMF.LT.0.8) GAMF=0.8
      IF(J.LE.5.AND.GAMF.GT.1.05) GAMF=1.0
      IF(J.EQ.3.AND.W0(3).GT.25) GAMF=1.5
    IF(J.EQ.5.AND.W0(5).GE.25) GAMF=1.5
    IF(J.GE.6) GAMF=1
    ENDIF

      IF(NO.EQ.8) THEN
    IF(J.LE.5.AND.KSIFL.LT.0.9) KSIFL=0.9
      IF(J.LE.5.AND.KSIFL.GT.1.05) KSIFL=1.0
    IF(J.GE.6) KSIFL=1

    IF(J.LE.5.AND.GAMF.LT.0.8) GAMF=0.8
    IF(J.EQ.1.AND.W0(1).LT.0.5) GAMF=0.5
      IF(J.LE.5.AND.GAMF.GT.1.05) GAMF=1.0
    IF(J.GE.6) GAMF=1
    ENDIF
```

……

****

Расчет урожайности озимой пшеницы в областях Приволжья (фрагменты)

```
    DATA N11C/5*1/
    DATA N22C/5*4/
    DATA N11V/18,14,19,11,11/
    DATA N22V/5*7/
    DATA SBM/206.,170.0,172.0,150.0,169.0/
    DATA (W00(1,K),K=1,18)/9.,10.,11.,11.,13.,14.,15.,20.,22.,
   *20.,21.,22.,15.,20.,15.,111.,111.,111./
    DATA (W00(2,K),K=1,18)/9.,8.,10.,9.,10.,12.,13.,18.,21.,
   *16.,16.,18.,12.,15.,13.,111.,111.,111./
    DATA (W00(3,K),K=1,18)/10.,11.,13.,14.,16.,16.,16.,19.,21.,
   *24.,24.,21.,17.,20.,15.,111.,111.,111./
    DATA (W00(4,K),K=1,18)/8.,7.,10.,8.,10.,12.,12.,14.,16.,
   *16.,14.,14.,11.,13.,11.,111.,111.,111./
    DATA (W00(5,K),K=1,18)/8.,8.,11.,11.,11.,14.,11.,14.,18.,
   *15.,15.,16.,13.,14.,11.,111.,111.,111./
    DATA (TSS(1,K),K=1,18)/1.8,6.0,8.5,12.1,14.1,14.8,15.9,18.0,
   *18.7,19.2,19.9,19.4,18.9,17.4,111.,111.,111.,111./
    DATA (TSS(2,K),K=1,18)/1.8,6.4,9.3,12.8,15.1,15.8,16.6,19.0,
   *19.4,20.3,20.6,20.4,20.0,18.6,111.,111.,111.,111./
    DATA (TSS(3,K),K=1,18)/2.0,5.9,8.5,12.2,13.9,14.6,16.0,17.5,
   *18.3,18.6,19.4,19.0,18.7,17.4,111.,111.,111.,111./
    DATA (TSS(4,K),K=1,18)/1.0,6.0,9.6,12.7,15.2,16.2,17.0,19.6,
   *20.2,21.3,21.2,21.2,20.7,19.4,111.,111.,111.,111./
    DATA (TSS(5,K),K=1,18)/3.3,7.5,10.3,13.7,15.9,16.6,17.9,19.8,
   *20.5,21.0,21.7,21.6,21.1,20.0,111.,111.,111.,111./
      open (5, file="opdprv.dat")
```

```
        READ(5,104)ZAG
    READ(5,108)ND,MD,NG, NGf
        open (unit=6, file='opdprv.res')
……….

    RAST=TS2-TKS(NO)
    if(no.eq.1.and.md.eq.5.and.rast.gt.100.and.sumoc(5).lt.45)af0=0.4
    if(no.eq.1.and.md.eq.6.and.rast.gt.159.and.sumoc(5).lt.45)af0=0.4
        if(no.eq.3.and.rast.gt.100.and.sumoc(5).lt.25)af0=0.52
        if(no.eq.5.and.rast.gt.100.and.sumoc(5).gt.40)af0=0.58
    if(no.eq.4.and.sumoc(5).gt.60)bk=18
    if(no.eq.5.and.rast.gt.100)bk=18
    if(no.eq.4.and.rast.gt.200)bk=18
……….

    if (NO.EQ.1) then
C         2013
    if ((j.eq.3).and.(G2.LT.0.1).and.(G3.GT.1.75)) GAMF=1.2
        if ((j.eq.4).and.(G3.GT.1.75).and.(G4.GT.0.75)) GAMF=1.5
      endif
    if (NO.EQ.2) then
C         2013
    if ((j.eq.4).and.(G3.GT.1.75).and.(G4.GT.1)) GAMF=2
         endif
    if (NO.EQ.3) then
C         2013
    if ((j.eq.3).and.(G3.GT.2)) GAMF=2.5
        if ((j.eq.4).and.(G3.GT.2).and.(G4.LT.0.15)) GAMF=2
      endif
    if (NO.EQ.5) then
CV        2010,2011
    if ((J.EQ.3).AND.(G3.LT.0.2))GAMF=0.3
……….
```

****

Расчет урожайности озимой пшеницы в областях Северо-Запада России (фрагменты)

```
    DATA N11C/5*1/
    DATA N22C/5*4/
    DATA N11V/6,4,4,31,31/
    DATA N22V/3*8,2*7/
    DATA SBM/268.0,181.0,138.0,145.4,127.6/
    DATA (W00(1,K),K=1,18)/13.,14.,14.,15.,16.,16.,21.,21.,22.,
   *24.,25.,25.,27.,27.,26.,111.,111.,111./
    DATA (W00(2,K),K=1,18)/15.,15.,15.,17.,17.,18.,24.,25.,25.,
   *28.,29.,29.,26.,27.,26.,111.,111.,111./
    DATA (W00(3,K),K=1,18)/13.,13.,13.,16.,16.,17.,24.,24.,24.,
   *27.,28.,28.,27.,26.,26.,111.,111.,111./
    DATA (W00(4,K),K=1,18)/13.,13.,14.,18.,18.,19.,24.,25.,25.,
   *31.,31.,31.,25.,25.,25.,111.,111.,111./
    DATA (W00(5,K),K=1,18)/12.,13.,13.,17.,17.,18.,24.,25.,25.,
```

```
     *29.,29.,29.,26.,26.,25.,111.,111.,111./
      DATA (TSS(1,K),K=1,18)/0.7,2.8,4.9,7.7,10.2,11.3,13.6,14.6,
     *15.6,16.0,16.9,16.8,16.5,15.6,111.,111.,111.,111./
      DATA (TSS(2,K),K=1,18)/1.5,3.6,6.3,9.3,11.2,12.7,14.3,15.1,
     *16.1,16.2,17.5,17.0,16.7,15.4,111.,111.,111.,111./
      DATA (TSS(3,K),K=1,18)/2.0,4.0,6.6,9.6,11.5,12.5,14.7,15.2,
     *16.1,16.1,17.2,17.0,16.9,15.9,111.,111.,111.,111./
      DATA (TSS(4,K),K=1,18)/2.1,4.7,7.3,10.5,11.9,12.9,14.9,15.2,
     *16.4,16.2,17.5,16.8,15.6,16.4,111.,111.,111.,111./
      DATA (TSS(5,K),K=1,18)/1.4,3.9,6.6,9.7,11.4,12.4,14.3,15.2,
     *16.2,16.3,17.6,16.9,111.,111.,111.,111.,111.,111./
          open (unit=5, file="opdszp.dat")
          READ(5,104)ZAG
      READ(5,108)ND,MD,NG, NGf
          open (unit=6, file="opdszp.res")
…………………………………………………………………………………

          IF(NO.EQ.1) THEN
      IF(J.eq.1) KSIFL=1
          IF(J.LE.5.AND.KSIFL.LT.0.9) KSIFL=0.9
          IF(J.LE.5.AND.KSIFL.GT.1.05) KSIFL=1.0
      IF(J.EQ.3.AND.TS(3).GE.9) KSIFL=1.5
      IF(J.GE.6) KSIFL=1

          IF(J.eq.1) GAMF=1
      IF(J.LE.5.AND.GAMF.LT.0.85) GAMF=0.85
          IF(J.LE.5.AND.GAMF.GT.1.05) GAMF=1.0
          IF(J.EQ.3.AND.W0(J).GT.21) GAMF=1.5
      IF(J.EQ.4.AND.W0(3).GT.21.
     * AND.W0(4).LT.6) GAMF=1.0
cv    2014
          IF(J.EQ.5.AND.W0(1).LT.8.AND.W0(2).LT.8.
     * AND.W0(3).LT.8.AND.W0(4).GT.30.
     * AND.W0(5).GT.25) GAMF=1.5
      IF(J.GE.6) GAMF=1
      ENDIF
      IF(NO.EQ.2) THEN
      IF(J.LE.5.AND.KSIFL.LT.0.9) KSIFL=0.9
          IF(J.LE.5.AND.KSIFL.GT.1.05) KSIFL=0.9
      IF(J.GE.6) KSIFL=1
          IF(J.EQ.6.AND.TS(6).GT.19.5) KSIFL=1.3
      IF(J.EQ.7.AND.TS(7).GT.18) KSIFL=1.5
      IF(J.LE.5.AND.GAMF.LT.0.85) GAMF=0.85
          IF(J.LE.5.AND.GAMF.GT.1.05) GAMF=1.0
      IF(J.EQ.4.AND.W0(J).GT.29) GAMF=1.8
          IF(J.EQ.4.AND.W0(3).GT.22.
     * AND.W0(4).LT.9) GAMF=1.1
      IF(J.GE.6) GAMF=1
      IF(J.EQ.6.AND.W0(5).GT.50.
     * AND.W0(6).GT.50) GAMF=0.8
      ENDIF
          IF(NO.EQ.3) THEN
```

```
      IF(J.LE.5.AND.KSIFL.LT.0.9) KSIFL=0.9
      IF(J.LE.5.AND.KSIFL.GT.1.05) KSIFL=0.9
      IF(J.EQ.3.AND.TS(3).GT.10) KSIFL=2.0
      IF(J.GE.6) KSIFL=1
      IF(J.EQ.7.AND.TS(7).GT.19) KSIFL=1.3
      IF(J.LE.5.AND.GAMF.LT.0.85) GAMF=0.85
          IF(J.EQ.3.AND.W0(J).EQ.0.0) GAMF=0.5
      IF(J.EQ.3.AND.W0(1).GT.11.AND.W0(2).GT.23.
     * AND.W0(3).GT.17) GAMF=1.3
          IF(J.LE.5.AND.GAMF.GT.1.05) GAMF=1.0
          IF(J.GE.6) GAMF=1
      ENDIF
```

……

****

Расчет урожайности озимой пшеницы в Алтайском крае (Западная Сибирь) (фрагменты)

```
      DATA N11C/1/
      DATA N22C/4/
      DATA N11V/25/
      DATA N22V/7/
      DATA SBM/193.0/
      DATA (W00(1,K),K=1,18)/ 8., 9., 9.,11.,12.,14.,15.,13.,19.,15.,
     *20.,25.,20.,14.,111.,111.,111.,111./
      DATA (TSS(1,K),K=1,18)/ .0,3.8,6.9, 9.7,12.0,14.3,16.9,18.4,
     *19.6,20.0,20.1,19.5,17.2,17.5,15.0,111.,111.,111./
          open (5, file="opdzs.dat")
          READ(5,104)ZAG
      READ(5,108)ND,MD,NG, NGf
          open (6, file="opdzs.res")
```

……

```
  405 X=(TS(J)-TMIN)/(TP1-TMIN)
      KSIFL=13.7*SIN(0.0774*X)
      GOTO 466
  406 X=1-((TS(J)-TP2)/(TMAX-TP2))
      KSIFL=0.955*SIN(1.5705*X)
  466 IF(KSIFL.GT.1)KSIFL=1
      if(ksifl.lt.0.8)ksifl=0.8
      IF((J.LE.8).AND.(TS(J).GE.21))KSIFL=0.8
          TSS3=TSS2(NO,J)
      GAMF=W0(J)/WN
      IF(J.EQ.1.or.j.eq.2.or.J.eq.3)
     *GAMS= aKLI(real(GAMF),DAX1)
      if(j.ge.4.and.j.le.6)
     *GAMS=aKLI(real(GAMF),DAX2)
      IF(j.eq.7.or.j.eq.8)GAMS=aKLI(real(GAMF),DAX3)
      IF(J.GE.9)GAMS=1.00
      GAMF= GAMS
```

……