Variety file ID ( left to right numbering)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| First Squaring\*  Adjustment to date of occurrence | Adjustment to specific leaf weight  LEAFWT\* |  | Adjustment to root weight in N-deficient soil  PDWRT\* |  |
| Adjustment to (day/night) root/ shoot ratio  RATIOD/N\* | Adjustment to fruiting site initiation  xms/fbn TI\* | CDLAYF B0 constant | CDALYF B1 constant | CDLAYF B2 constant |
| Early FLOSS | First BLOOM\*  Adjustment to date of occurrence from FSQ | Late FLOSS | DEHIScence\*  Adjustment to date of occurrence from BLOOM | Adjustment to main stem node initiation  MS TI\* |
| Max fraction of square to abscisse DPSMX  constant | Maximum fraction of boll  to abscisse DPBMX  constant | FLOSS Switch  constant | Adjustment due to stress day/eve\_lfstres\* leaf\_growth\_water\_stress | Adjust the boll safe days  AGEABZ constant |
| PSILIN LF  leaf\_growth\_water\_stressconstant | PSILIN DZ stem\_growt\_water\_stress constant | NDLAY  constant |  | CDLAYV B1 constant |
|  | Minimum LAI affected by boll temperature  MIN LAI BOLTMP | Adjustment to vegetative  node initiation  VEG NODE PFTI\* | Adjustment to leaf area expansion  DURATION\* | Adjustment to leaf age  LF AGEFAC |
| Adjustment to C-allocation of <35 d stems STEM C-ALLOC\* | Adjustment to C-allocation of >35 d stems STEM C-ALLOC\*  C-ALLOC\* | Maximum boll size  MAX BSIZE  genetic potential, g | LL VNO3C RUTGRO  constant |  |
|  | CDLAYV B2 constant |  |  | Adjustment to plant evap.  RFEP\* |
| Adjustment to leaf age  DROPLF | < 35 d  PDSTMD (N) constant | Adjustment to initial pre-fruiting leaf area  PFLfArea\* | Adjustment to initial main stem leaf area  XMSLfArea\* | Adjustment to initial fruiting leaf area  FBLfArea\* |
| Adjustment to initial plant height due to EPI  DZ at initiation\* | Adjustment to internode elongation  DURATION\* | Adjustment to photosynthesist due to EPI  PTSRED\* | Adjustment to plant height  DZ\* |  |
|  | Adjustment to stem height XMNODLTH\*  NUMPFN < 5 | Adjustment to stem height XMNODLTH\*  FCODE < 2 | Adjustment to stem height XMNODLTH\*  FCODE > 2 XMNODLTH  NUMPFN >= 5 | Adjustment to pre-fruiting leaf weight  PFDALD/N\* |
| Adjustment to leaf weight  PDAMLD/N\* |  | Adjustment to square wt  PDWSQ\*  potential\_sqr\_growth | Adjustment to photosynthesis  PSTAND\* | Adjustment to boll weight  PDWBOD/N\*  potential\_sqr\_growth |

\*Calibration parameters using KR Reddy’s new equations.

All calibration parameters denoted as constant cannot be changed.

Example: Variety file India

India

0.90 0.75 0.00 0.70 0.00

1.25 1.00 0.90 -0.22 -2.20

0.75 1.20 2.00 0.95 1.00

0.50 0.50 0.10 1.00 1.00

-0.85 -0.90 1.25 0.00 -0.10

0.00 3.00 1.20 0.95 1.00

0.20 1.00 7.00 .0005 0.00

0.00 -5.50 0.00 0.00 1.00

1.00 35.00 1.00 1.00 1.00

1.00 1.00 1.00 0.90 0.00

0.00 1.00 1.00 1.00 1.00

1.25 0.00 1.00 1.00 3.00

Calibration parameters are numbered from left to right and top to bottom, i.e. calbrt(1) denotes the time to First Squaring from Emergence and calbrt(60) the Adjustment to potential change in boll weight during the day/night, PDWBOD/N.

Calibration parameters that can be changed due to varietal differences are:

Calbrt(1) = date of first square from emergence, FSQ

Calbrt(12) = date of first bloom from FSQ, BLOOM

Calbrt(14) = date of first open boll from BLOOM, DEHISS

Calbrt(15) = Main stem node initiation rate, MSTI

Calbrt(28) = Pre-fruiting node initiation, PFTI

Calbrt(46) = Daily change in plant height at initiation

Calbrt(49) = Daily change in plant height

Adjustments should be made in increments of +0.05 and within +1.00. To increase the event, the adjustment/modifier should be positive, otherwise the modifier should be negative.

Other parameters that can be adjusted are:

Calbrt(27) = Minimum LAI that will cause an increase in boll temperature, BOLTMP

Calbrt(33) = Maximum boll size or its genetic potential boll size, grams, BSIZE

These parameters can be adjusted with EXTREME CAUTION:

Calbrt(2) = adjustment to specific leaf weight, LEAFWT

Calbrt(11) = adjustment to fruit loss while green boll weight is < 10% of total plant weight, FLOSS

Calbrt(13) = adjustment to fruit loss when green boll weight is > 10% of total plant weight, FLOSS

Calbrt(31) = adjustment to potential stem weight increments < 35 days after emergence during the

day/night, PDSTMD/N

Calbrt(32) = adjustment to potential stem weight increments > 35 days after emergence during the

day/night, PDSTMD/N

Calbrt(55) = adjustment to pre-fruiting leaf weight increments during the day/night, PFDALD/N

Calbrt(56) = adjustment to potential leaf weight increments during the day/night, PDAMLD/N

Calbrt(58) = adjustment to potential square weight increments, PDWSQ

Calbrt(60) = adjustment to potential boll weight increments during the day/night, PDWBOD/N