Fig.1

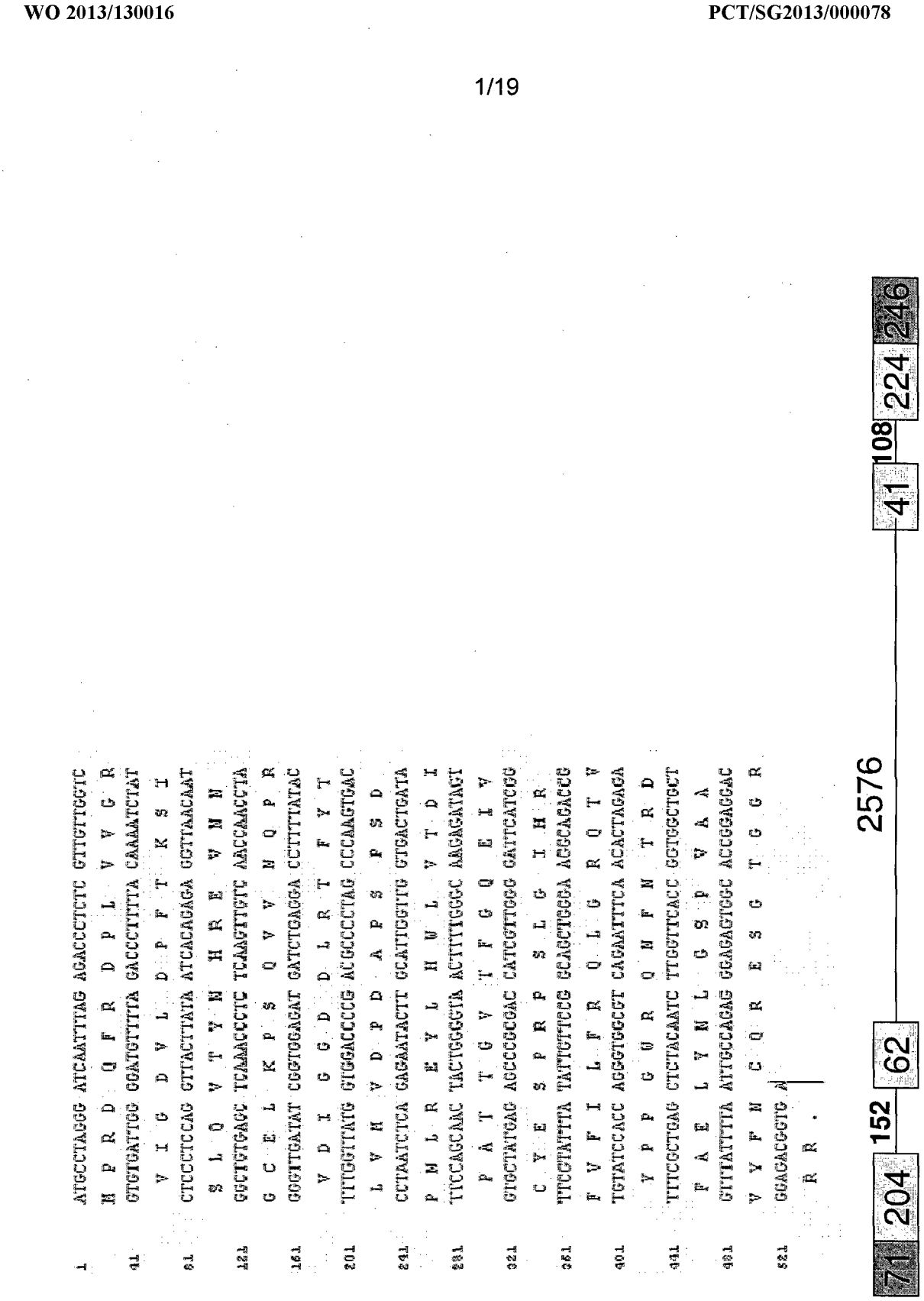

A
1 ATGCCTAGGG ATCAATTTAG AGACCCTCTC GTTGTTGGTC
M P R D Q F R D P L V V G R
41 GTGTGATTGG GGATGTTTTA GACCCTTTTA CAAAATCTAT
V I G D V L D P F T K S I
81 CTCCCTCCAG GTTACTTATA ATCACAGAGA GCTTAACAAT
S L Q V T Y N H R E V N N
121 GGCTGTGAGC TCAAACCCTC TCAAGTTGTC AACCAACCTA
G C E L K P S Q V V N Q P R
161 GGGTTGATAT CGGTGGAGAT GATCTGAGGA CCTTTTATAC
V D I G G D D L R T F Y T
201 TTTGGTTATG GTGGACCCCG ACGCCCTAG CCCAAGTGAC
L V M V D P D A P S F S D
241 CCTAATCTCA GAGAATACTT GCATTGGTTG GTGACTGATA
P M L R E Y L H W L V T D I
281 TTCCAGCAAC TACTGGGGTA ACTTTTGGGC AAGAGATAGT
P A T T G V T F F G Q E I V
321 GTGCTATGAG AGCCCCGCAC CATCGTTGGG GATTCATCGG
C Y E S P R P S L G I H R
361 TTCGTATTTA TATTGTTCCG GCAGCTGGGA AGGCAGACCG
F V F I L F R Q L G R Q T V
401 TGTATCCACC AGGGTGGCGT CAGAATTTCA ACACTAGAGA
Y P P G G R Q M F M T R D
441 TTTCGGCTGAG CTCTACAATC TTGGTTCACC GGTGGCTGCT
F A E L Y N L G S P V A A
481 GTTTATTTTA ATTGCCAGAG GGAGAGTGGC ACGGGAGGAC
V Y F M C Q R E S G T G G R
521 GGAGACGGTG A
R R .
B
71 204 152 62 2576 41 108 224 246

Fig. 2

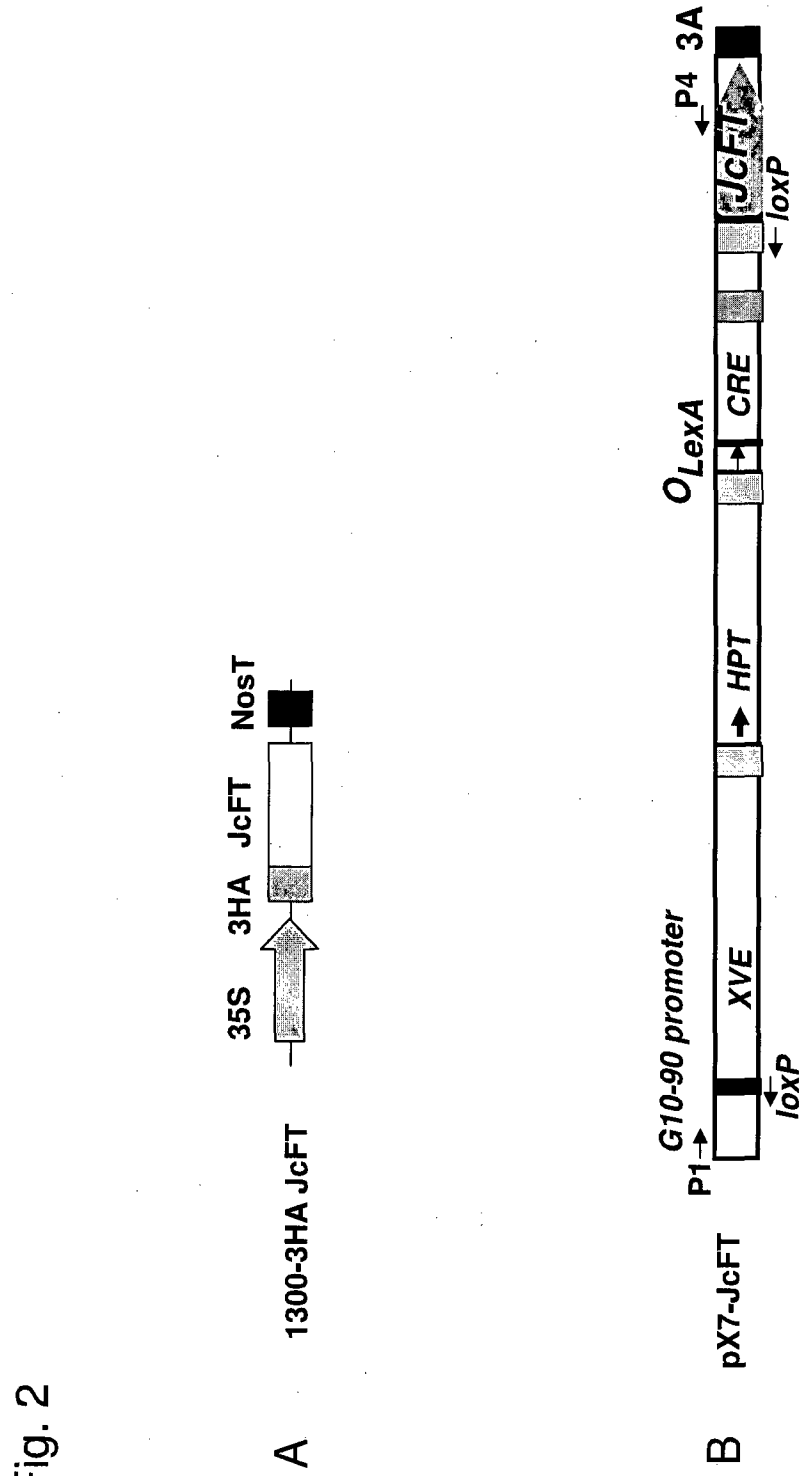

A
1300-3HA JcFT
35S
3HA
JcFT
NosT
B
pX7-JcFT
P1
G10-90 promoter
XVE
loxP
O LexA
CRE
HPT
P4
3A
JcFT
loxP

Fig. 3

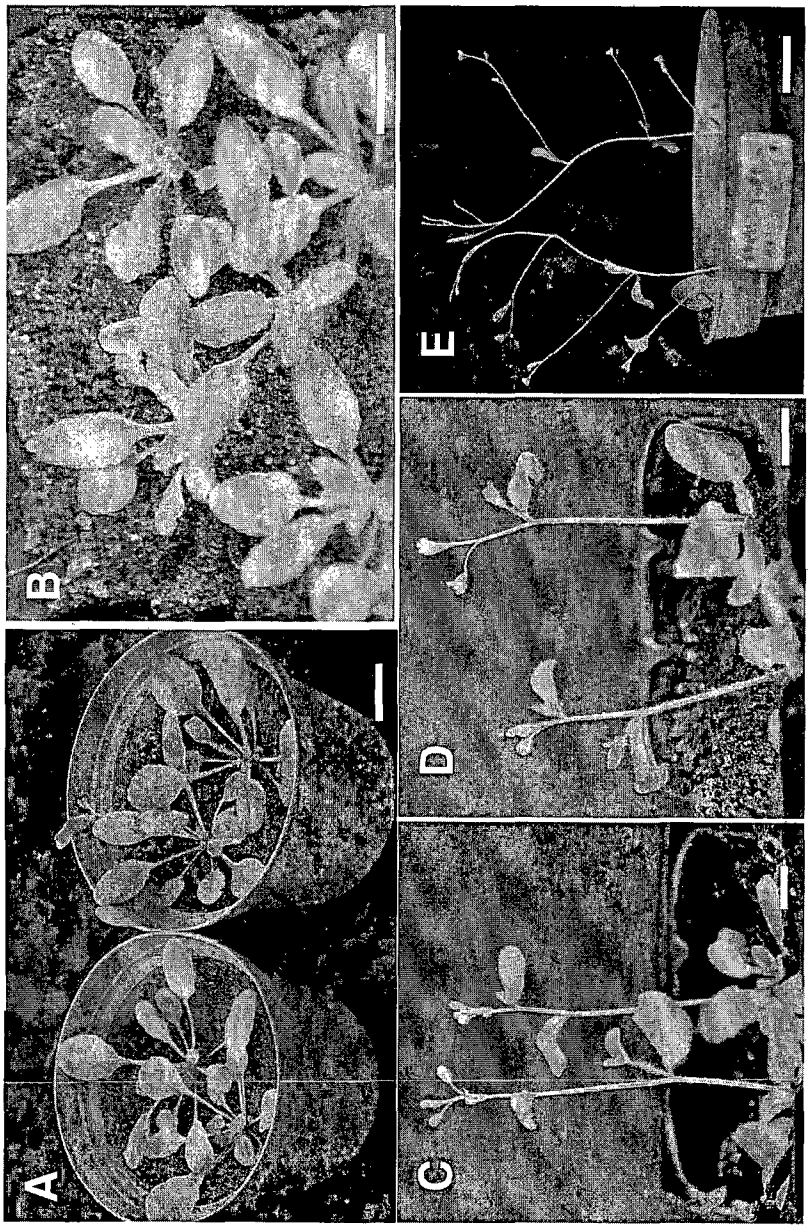


Figure 3: The JcFT transgenic shown early-flowering phenotypes in Arabidopsis.
A. Left pot: *ft-10*; right pot: 35S:JcFT/*ft-10* B: Col-0 WT control C-E 35S:JcFT/Col-0 WT lines.

Fig. 4 RT-PCR analysis of *JcFT* and *AtFT* transcripts
Total RNA extracted from 25 days old seedlings leaves

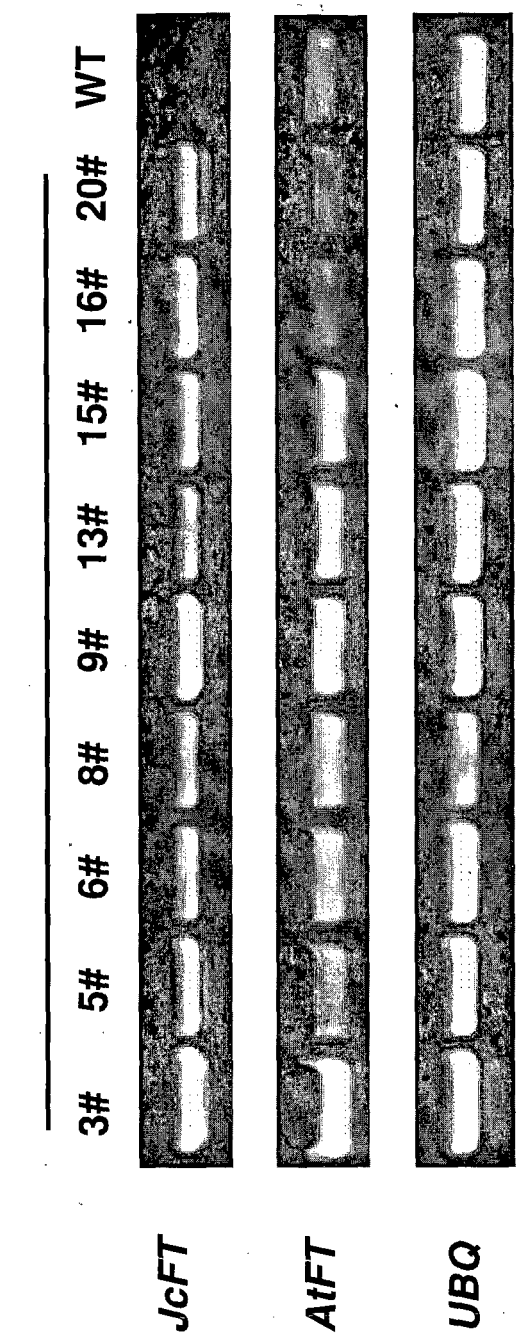
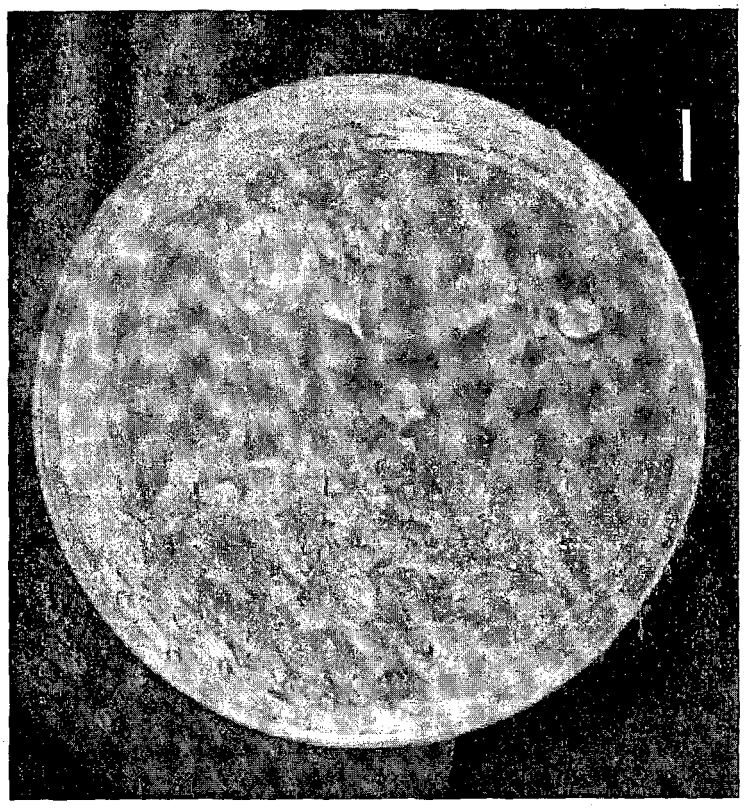


Fig 5. Overexpression of *JcFT* Strongly Accelerates Flowering in Transgenic Jatropha Plants



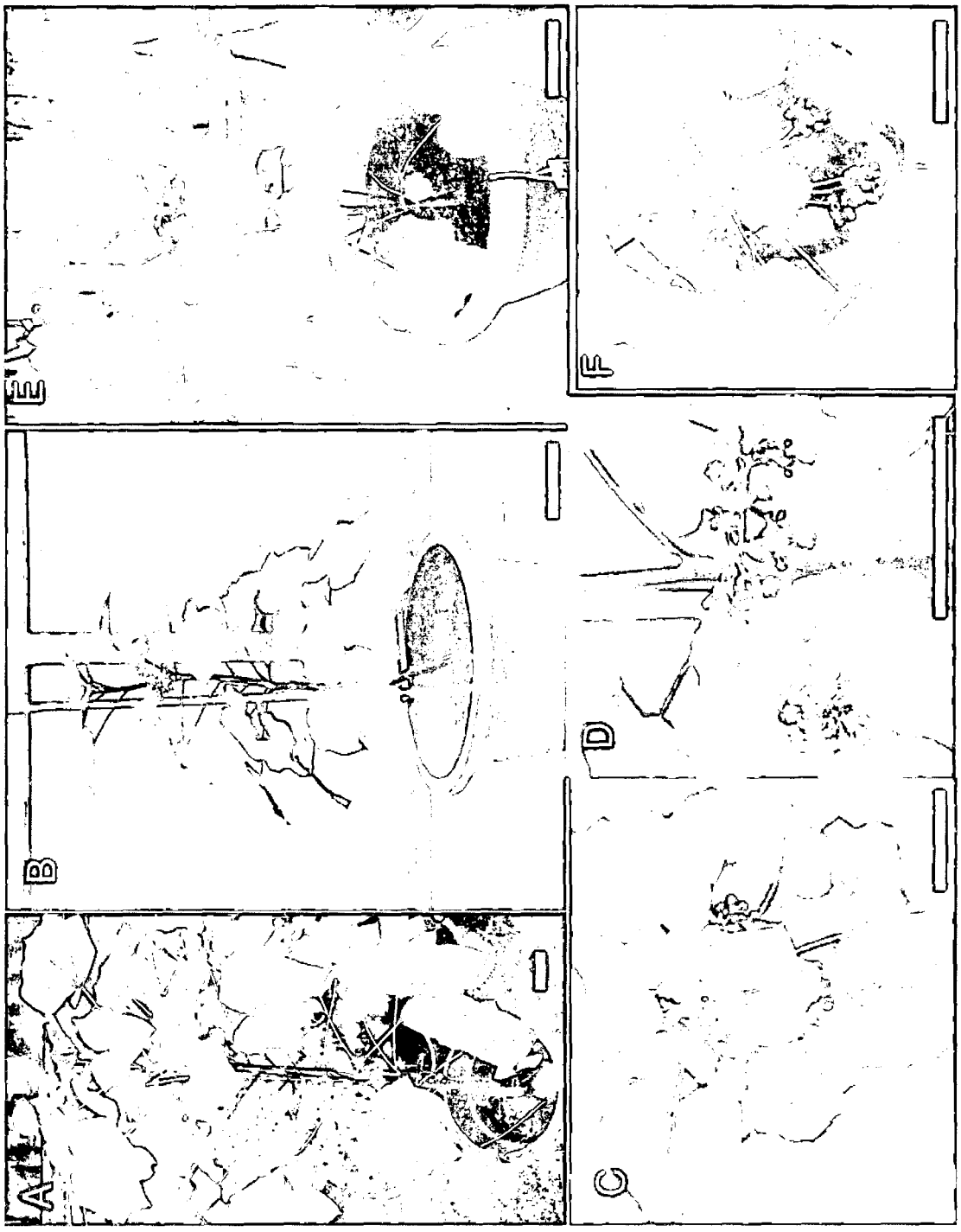


Fig. 6 Early flowering phenotypes in JcFT overexpression Jatropha

Fig. 7 Early flowering phenotypes in JcFT overexpression Jatropha

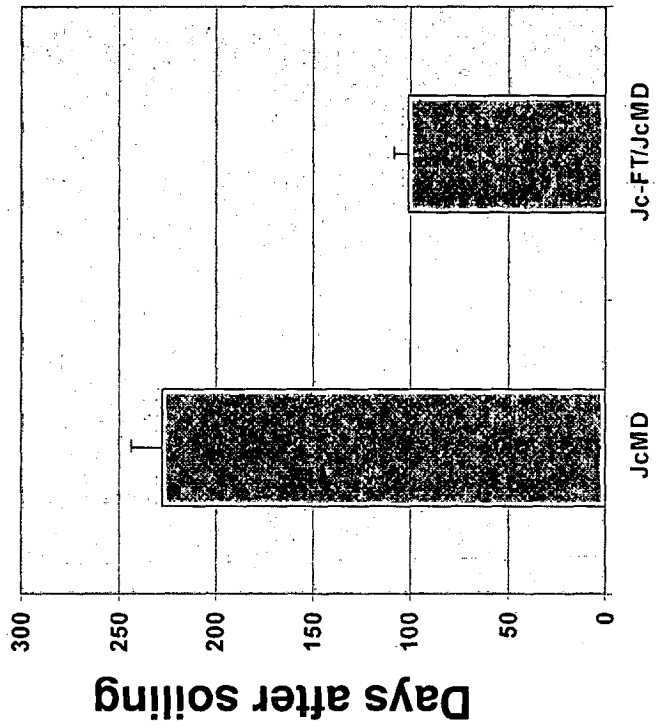
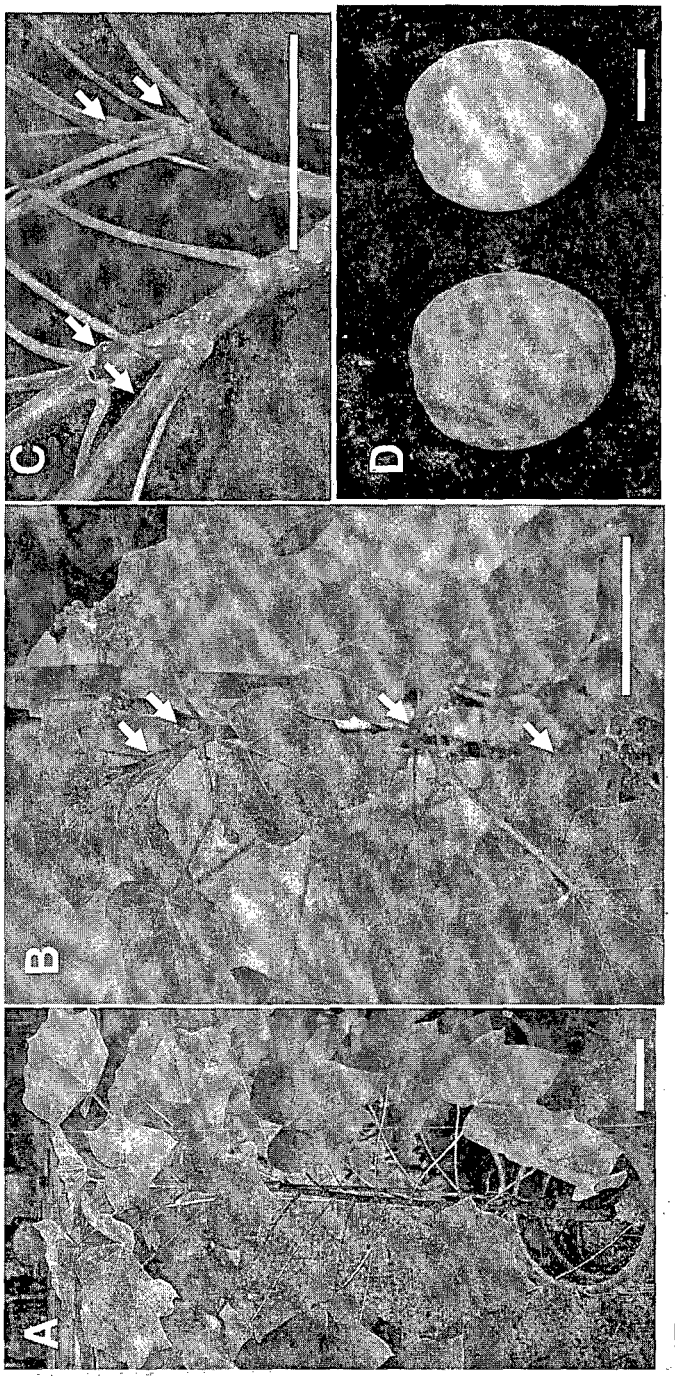


Fig. 8 More fruits and branches in JcFT overexpression Jatropha



E

	Flowering time	Fruit mature	seed number
JcMD44	8 M	2 M	4 (1 year)
JcFT#43	2 M	1-1.5 M	18 (0.5 year)

Fig. 9 Molecular analysis of JcFT overexpression plants

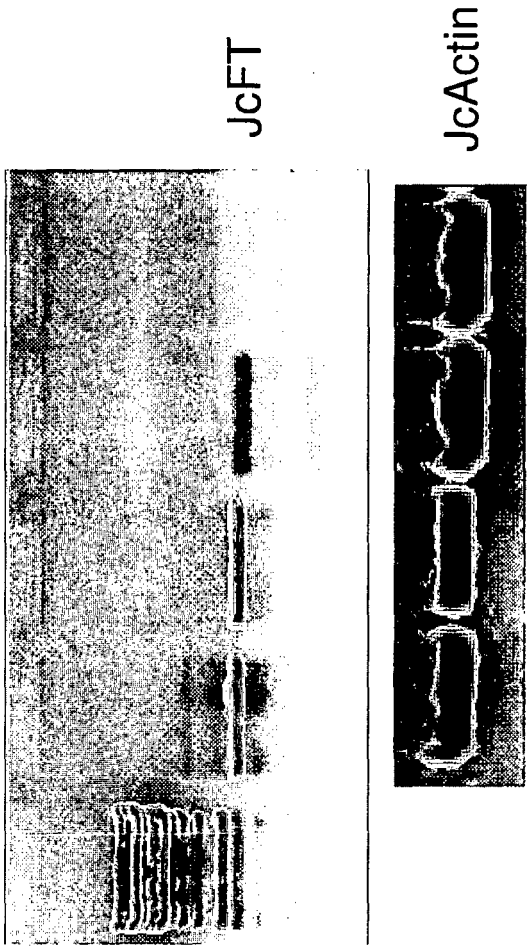
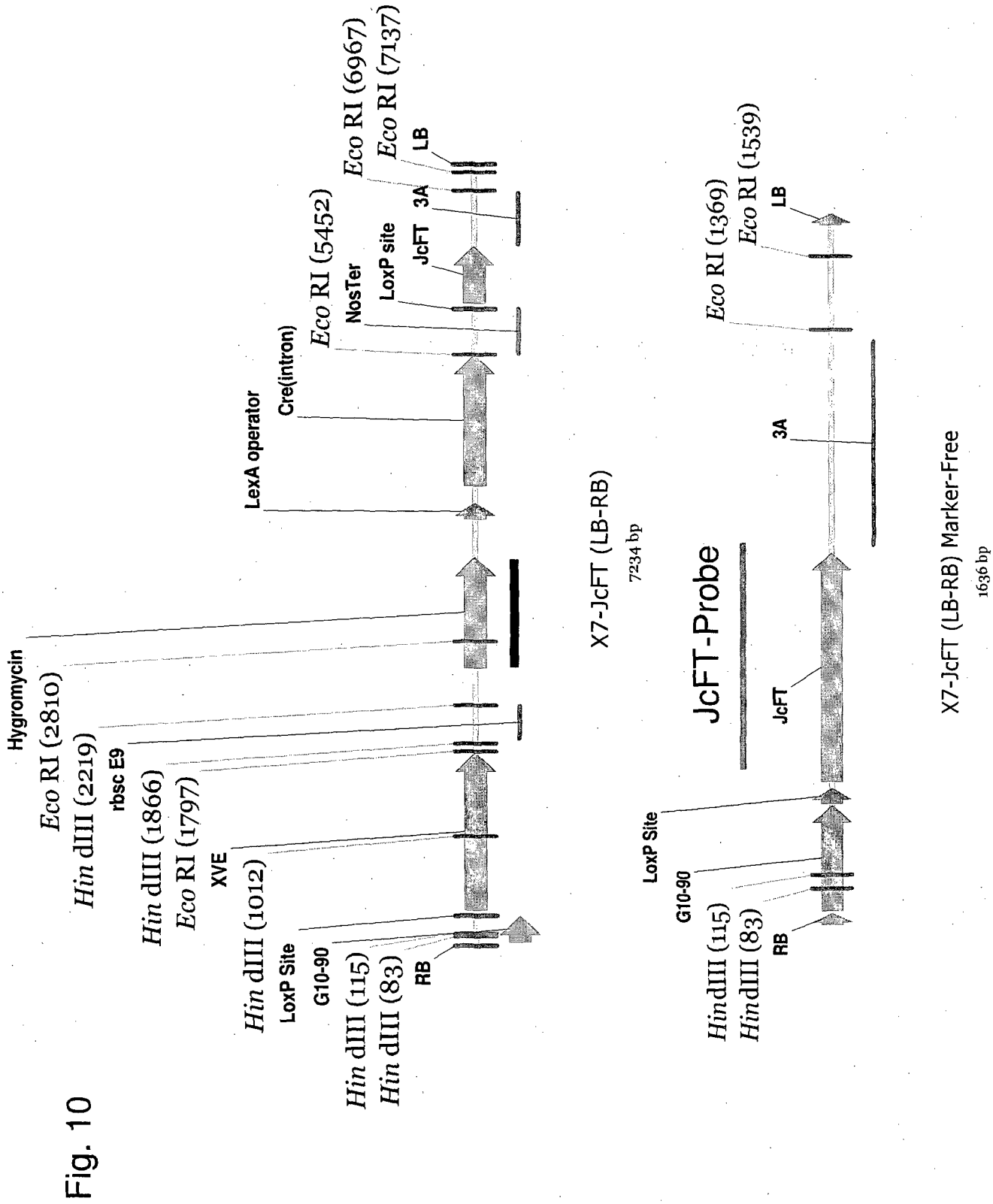


Fig. 10


Hygromycin
Eco RI (2810)
Hin dIII (2219)
rbsc E9
Hin dIII (1866)
Eco RI (1797)
XVE
Hin dIII (1012)
LoxP Site
G10-90
Hin dIII (115)
Hin dIII (83)
RB
LexA operator
Cre(intron)
Eco RI (5452)
NosTer
LoxP site
JcFT
3A
Eco RI (6967)
Eco RI (7137)
LB
X7-JcFT (LB-RB)
7234 bp
JcFT-Probe
LoxP Site
G10-90
HindIII (115)
HindIII (83)
RB
JcFT
3A
Eco RI (1369)
Eco RI (1539)
LB
X7-JcFT (LB-RB) Marker-Free
1636 bp

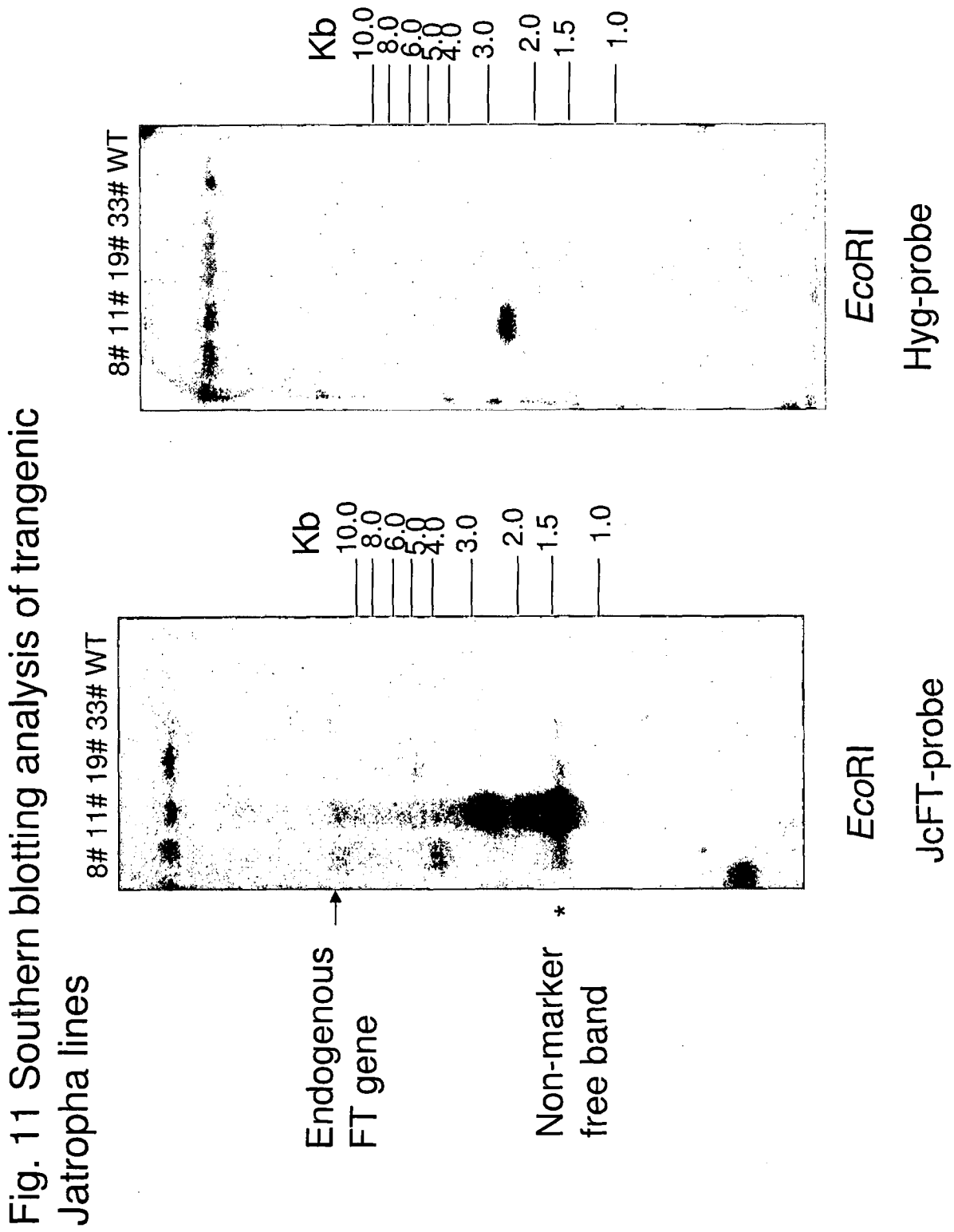


Fig. 11 Southern blotting analysis of trangenic Jatropha lines

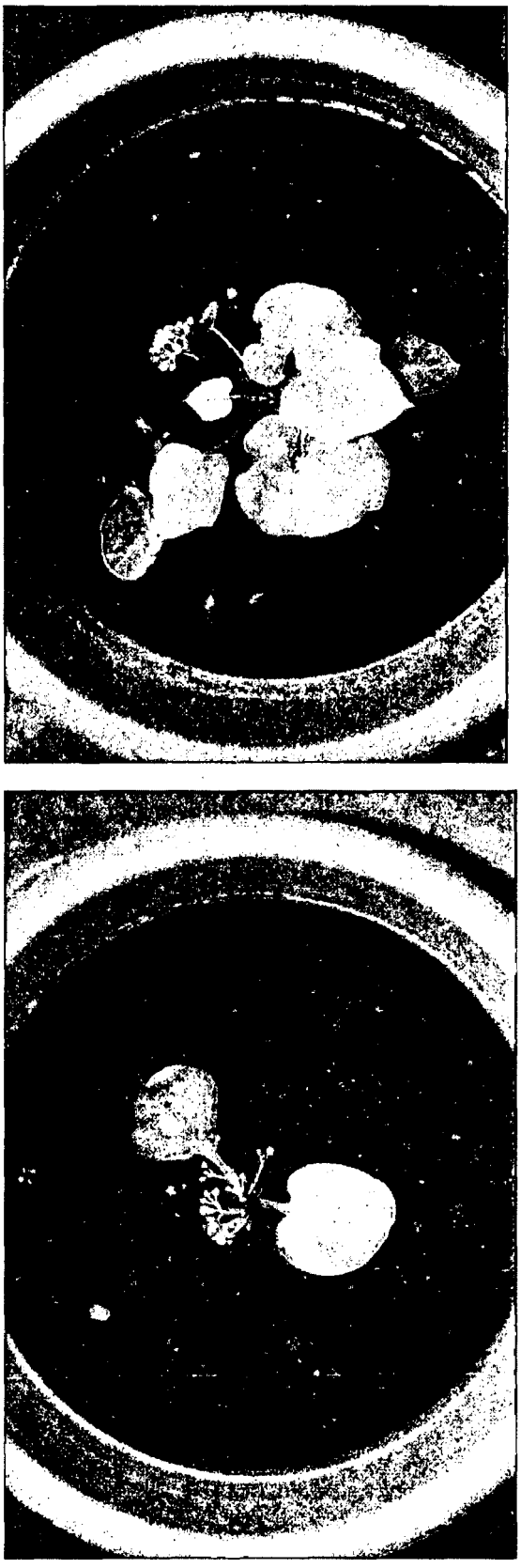


Fig. 12 Heritable Early flowering phenotypes in T1 plants of JcFT overexpression Jatropha line

Fig. 13 PEBP family proteins in Euphorbiaceae plants

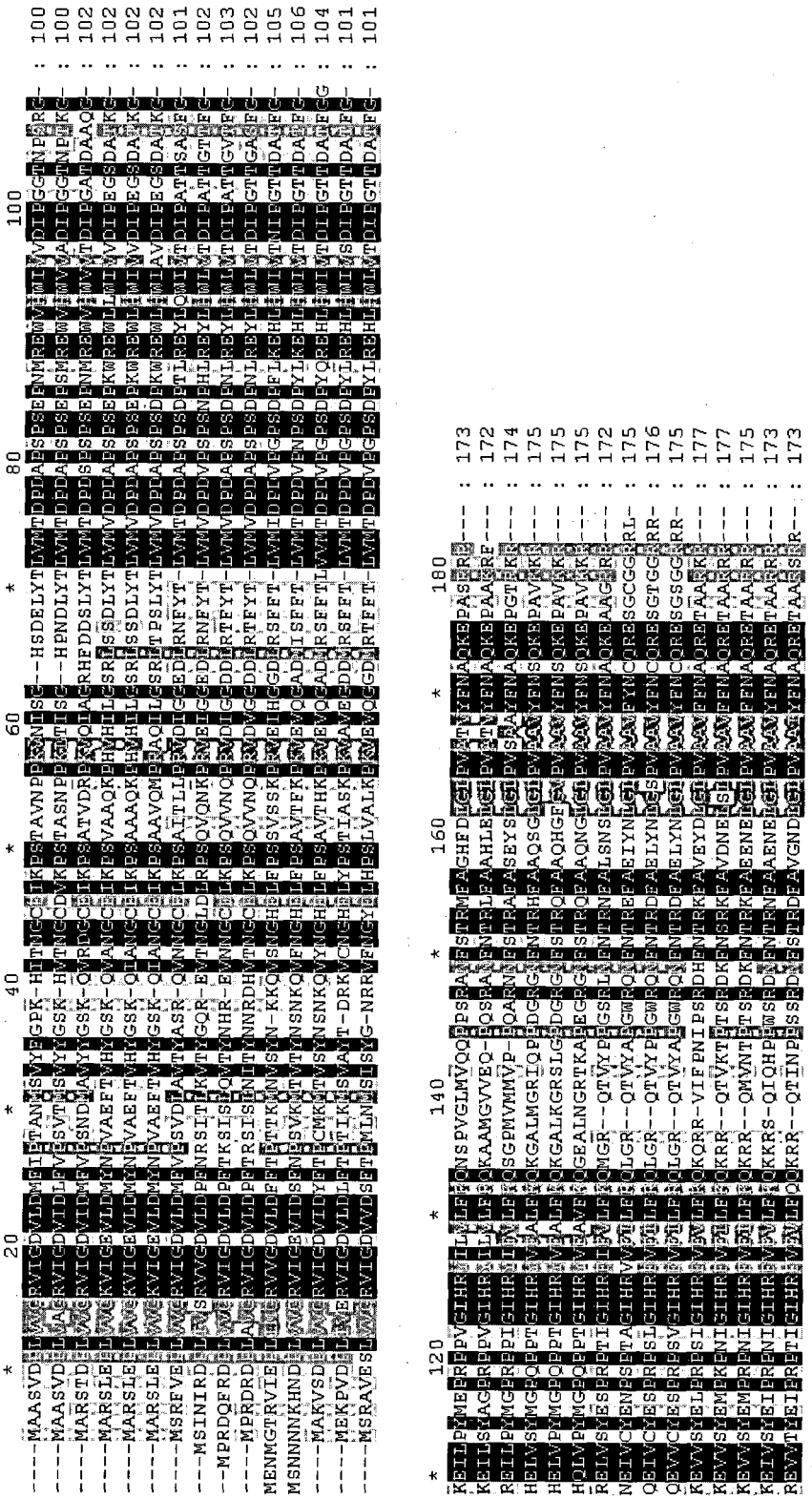


Fig. 14 Phylogenetic analysis of PEBP family proteins in Euphorbiaceae plants

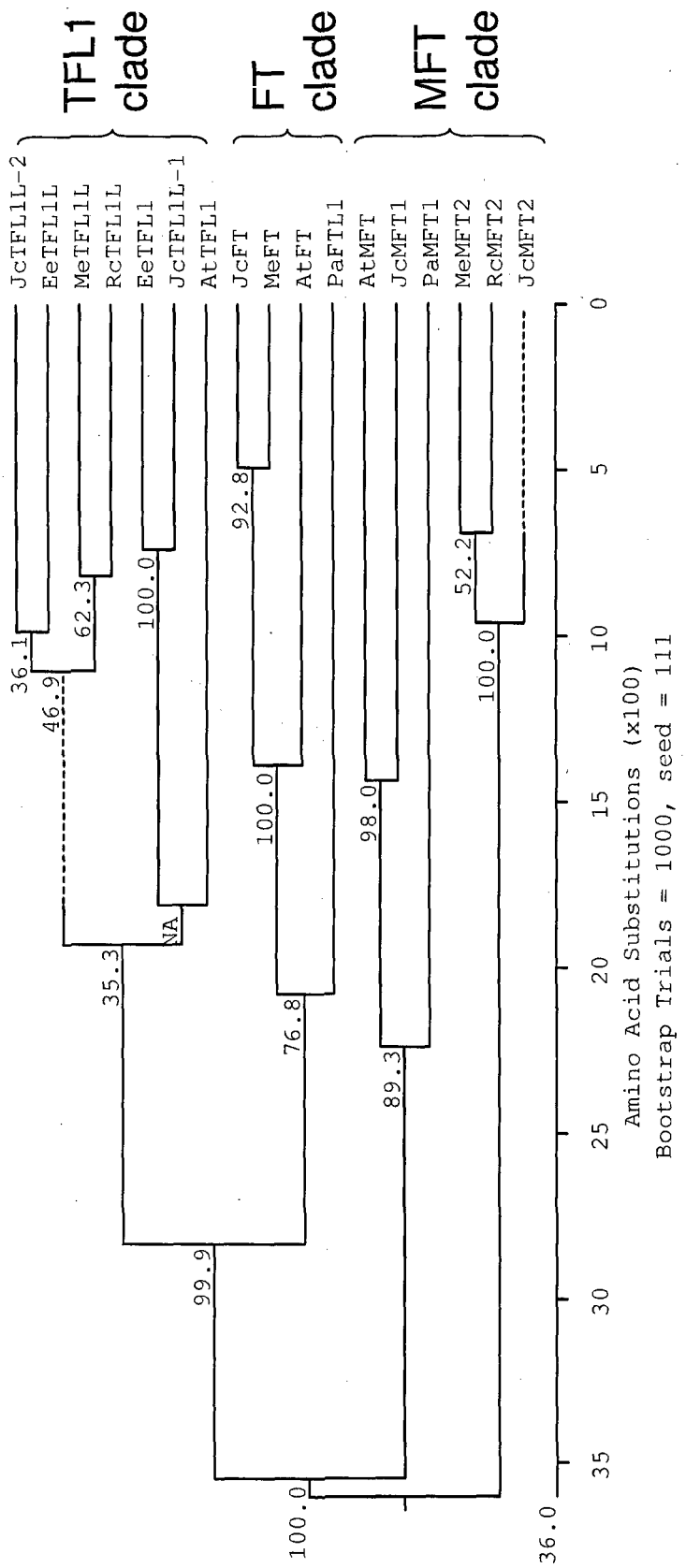


Fig. 15 Early instead of later flowering phenotypes in JcTFL1L-1 and JcTFL1L-2 overexpression Arabidopsis



Fig. 16 RT-PCR analysis of *JcTFL1L-1:3HA* and *JcTFL1L-2:3HA* transcripts in transgenic Arabidopsis

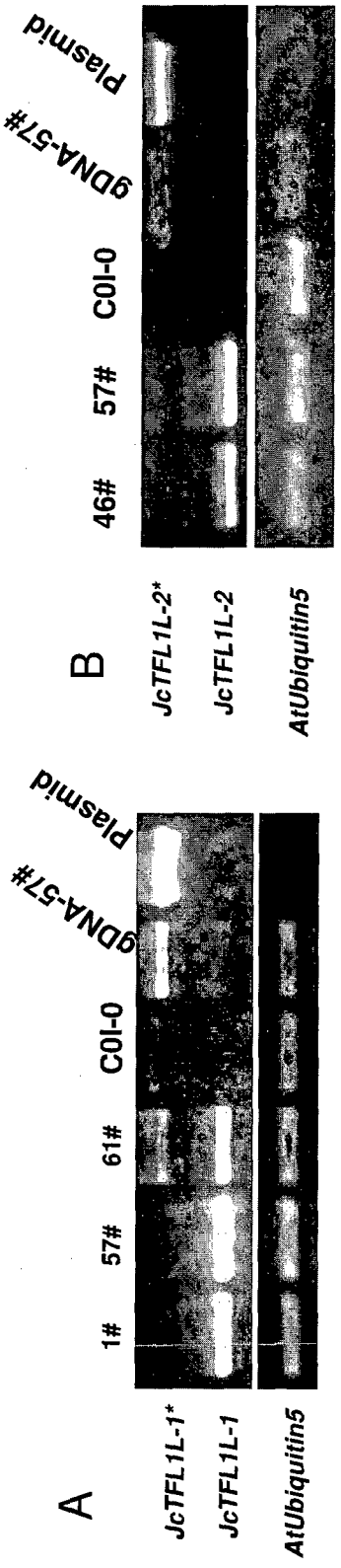


Fig. 17 Western blot analysis of JcTFL1L-1:3HA and JcTFL1L-2:3HA protein translation

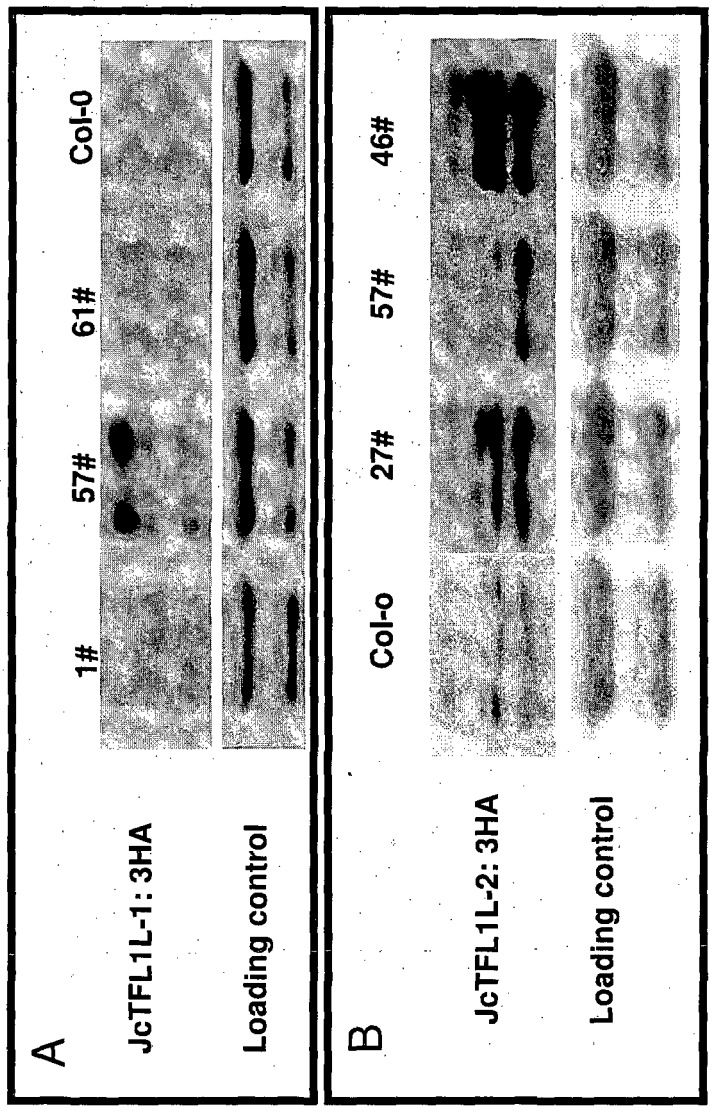




Fig. 18 Early flowering and self-pruning phenotypes in JcTFL1L-1 overexpression Jatropha

Fig. 19 multiple shoots in JcTFL1L-2 overexpression Jatropha

