

FORESTS DEPARTMENT.

g 7771/39

FILE NO.

12 / 41

"E"

4/15

Subject: EXPERIMENT — RED FLOWERING

Gum FRUITS & FLOWERING PERIODS

THIS SHEET NOT TO BE WRITTEN ON.

SEE ALSO

UNDER

"S" No $\frac{15}{50}$ "Seeds"

"R" $\frac{32}{36}$ "Red Flowering Gum & Corr."

"R" $\frac{13}{41}$ " " " " " Reserves 19881415677
— Fire Control "

File Red Flowering Gum.
JAY
28-10-39.

R. F. Gum (Wattle Resame)
N15677.

Fruit vessels remain ripe on the
trees for probably 12 months
after which the vessels open
& seed is deposited. (East River)

During the time the ~~seed~~ fruit
is ripe on the tree & before
the seed is deposited, the
limb or twig remains alive
but the leaves fall off.

After seed is deposited
the twig dies

17th Oct 1939 Odd trees in
blossom

This may be due to 1937 fire
See if it the same on areas which
are known ~~not~~ to have been burnt

Red Flowering Reserve 1988/1
via Kentdale.

History ^{UNCONTROLLED BURNS} In the severe general fires of Feb. 1937 the whole area was burnt black. Severe fires again swept the vicinity in 1941 but the area protected by fire lines was not burnt (see plan on file "Fire Control R7thum Reserve" no 13/41).

FLOWERING

A general flowering was noted in May 1940, when trees were carrying buds, flowers & immature fruit & estimated to have ^{first} commenced flowering in March 1940.

Some ~~matured~~ fruit was matured in March 1941, from 10 seeds planted 100% germination was obtained.

JAY
9/6/41

- Tree No. 1. Inspected on 22/2/43. The tree is carrying heavy blossom.
- Branchlet No. 1. Still carrying 23 mature buds from 1941. No sign of opening. No other blossom.
- Branchlet No. 2. Carrying 8 mature fruits but under size. This branchlet is now carrying heavy blossom.
- " No. 6 11 + 9 matured fruit. Cell divisions discernable but no sign of opening. No other blossom.

EXPERIMENT - Red Flowering Gum Flowers & Fruits - Reserve 19881 (via Kentdale)

TREE NO.	LOCALITY	PARTICULARS OF MEASUREMENTS.		PARTICULARS OF MEASUREMENTS				PARTICULARS OF MEASUREMENTS			
		DATE		DATE	BRANCHLET No.	POSITION ON TREE	No. of FRUIT FLOWERS etc.	DATE	BRANCHLET No.	POSITION ON TREE	No. of FRUIT FLOWERS etc.
1	$\frac{1}{2}$ CHAIN SOUTH of SOUTH FIRELINE AT 65 CHAINS FROM TRACK (AT EAST END)	23-5-41	Branchlet no. 1 POSITION ON TREE - Limb from 1' above ground on east side No. of FRUIT or FLOWERS. Matured fruit (from 1940 flowers) but not open 3 branchlets - Top 4 fruit middle 8 fruit Bottom 10 fruit Total fruit = 25	27-11-41	1	Top 7 fruit middle 6 " 2 missing - nothing to indicate cause Bottom 10 Total = 23 no sign of opening but cell divisions are discernable		29-12-42	1	Top middle Bottom 10 - Total 23	Fruit show no signs of opening but will develop plus foliage large up to 50%
			Branchlet no 2. POSITION ON TREE - North side at about 9' from ground No. of FRUIT etc. 7 Immature fruits 62 Buds		2	Fruit 9 only Small about $\frac{1}{2}$ the size of normal matured fruit nothing to indicate what has caused except that the young growth is missing due to ?		"	Removed 1 fruit to test germination than on other limbs & has been fallen on west side & a new growth has taken its place The missing fruit to fall leaves has been affected - many limbs not normally healthy	8 fruit + 1 dead all small & underdeveloped about $\frac{2}{3}$ normal. Foliage also is small	
			BRANCHLET no 3 POSITION Top branch of main stem. No. of FRUIT etc. ? Buds coming into flower					29-12-42	not tagged		21 Fruit small
			No. 4. POSITION WEST SIDE at top of a south stem.					NO 4.	most westerly branchlet	37 fruit - small being only about $\frac{2}{3}$ normal size	
			No. 5. POSITION ? No. of FRUIT etc. ? Buds coming into flower. 33 Fruit small & (?) immature					NO 5.	South side 10' above ground.	20 fruit - small	
			No. 6. POSITION On west side, (outside branchlet) at 3' above ground.	27/11/41	6	11 + 9 Fruit = 20 cell divisions discernable but no opening		NO 6	1	11 + 9 = 20 fruit. no sign of opening	
		29-12-42 This tree & an adjacent $\frac{1}{2}$ chain to east is covered with buds (about $\frac{1}{2}$ inch)									

EXPERIMENT - Red Flowering Gum Flowers & Fruit

TREE NO	LOCALITY	PARTICULARS OF MEASUREMENTS				DATE	BRANCHLET NO.	POSITION ON TREE	NO. OF FRUIT FLOWERS ETC.	DATE	BRANCHLET NO.	REMARKS						
		DATE	BRANCHLET NO.	POSITION ON TREE	NO. OF FRUIT FLOWERS ETC.													
2.	1/2 CHAIN SOUTH OF NORTH FIRE LINE AT 80 CHAINS WEST OF TRACK.	23-5-41	1	Branchlet nos 1-6	In flower - 2 twigs 10+7 Total flowers = 17.	26/11/41	1	5 fruit only left. The 5 left have been bitten on the outside of the fruit & are including some small stalks to the ground.	The immature fruit apparently opens & is shot while after falling. All those found on the ground had opened 26/11/41									
			2	all contained on 1 small branch	Buds 37 Flowers 17 Immature fruit just lost petals 20 Total = 74.	26/11/41	2	4 twigs only containing 27 fruit (27 removed for germination test)	The missing fruit have apparently been chewed off by insects. The outside of practically all the remaining fruit show signs of having been chewed									
			3	on extreme	Flowers 8		3	2 fruit only (1 insect seen)	Missing fruit bitten off insects									
			4	N.W. side	Flowers 8.		4	6 fruit only, 1 removed	The dead stalks of the missing fruit indicate that the fruit has been missing for a longer period than the insect bitten fruit									
			5	4' from ground.	Matured fruit (from 1940 flowers) = 7		5	7 matured fruit (2 removed for germination test)	Very slight cracking of skin at cells.									
			6		Matured fruit (from 1940 flowers) 37		6	13+15+6+5 = 39 Total less 2 removed										
3.	8 Feet east of Tree no 2.	23-5-41	1	N.E. side Young branch 2" dia. at 7' from ground	3 Twigs Matured fruit Bottom 5 Top west 12 " east 7.	26/11/41	1	3 Twigs Matured fruit Bottom 5 Top west 12 " EAST 7	Fruit fresh & full of sap no sign of opening of fruit									
			2	N. side BRANCHLET 36" LONG FROM AN OLD DAMAGED LIMB 6" DIA. AT TRUNK	MATURED FRUIT. 4 TWIGS. TOP 21 2ND FROM TOP 13 3rd. " " 11 BOTTOM, EAST SIDE 10 TOTAL = 55	26/11/41	2	Top 21 2nd 13 3rd 12 Bottom 10	Fruit fresh & full of sap The skin inside commencing to crack faint opening of cells									
				INDICATOR PEGS ARE UNDER EACH LIMB.														
						26/11/41			Fruit commencing to open									
									Branchlet no. 5 Tree no 2. - 100% started to open									
									" no 6 " " " as a % only opening									

Red Flowering Gum - Observation Experiment

Object of Experiment

To ascertain the life history of flowering to seed

Period of flowering

" Bud to Blossom

Period of fruiting

Setting of fruit

How long a period from setting of fruit to maturity

4.

Method of obtaining data.

no. of Trees observed. — Three

How trees & fruits are recorded.

By tags.

Each tree is numbered & tagged

Each branch is tagged & numbered &

indicator pegs are placed in the ground immediately underneath the tagged branchlet.

Observation Plot

SW Jamaica botanical notes & book
specimens of *Bum. zingib.* & *Leig.* 1910 or 11

No.	PARTICULARS OF MEASUREMENTS				REMARKS
	DATE	POSITION ON TREE	BRANCHLET NO.	NO. OF FRUIT FLOWERS ETC.	
2	29-12-43		1	1 fruit	Dry patch on west side
	"		2	7 fruit 4+3 Total = 14 fruit	sound & well developed - no sign of opening Fruit not opened yet. Outside casing of fruit affected with dry dead area which appears to commence at opening of fruit & spreads around fruit & towards stalk
			3	2 fruit	Dead. The branchlet alive. (15+6=21 leaves) but stalk is affected with after the drying out complaint apparently the same as the fruit on branchlet no. 2.
			4	4 fruit	All affected with the same complaint as described branchlet no. 3. Otherwise well developed & sound & no sign of opening
			5	nil fruit	6 fruit have been chewed off (by birds - not apparently) within the last few weeks. Dead fruit on ground all open, fruit on tree but outside not damaged except for marks such as might be made by beak or claw. if held
			6	15 fruit alive 2 dead 1 removed	normal size & sound except dryness but complaint (see branchlet no. 2). 3 commencing to open. The rest closed. branchlet of branchlet dead. (May be from fire last year - see 1941 notes)
3	29/12/43		1		⊗ Top & middle bunch of fruit is missing, having been bitten off by birds 5 fruit on bottom bunch, well developed & sound no sign of opening yet.
			2	2+1 - 3	Fruit & well developed no opening yet. The rest bitten off
(10-20) later seen on					
- several flocks of black cockatoos, the reserve					
See also last year note re fruit commencing to open on					
branchlets 5 & 6 on tree no. 2.					

Tree no. 2 & 3
examined
16/11/43
Dead vessels
still quite green & no sign of opening

TREE NO.	PARTICULARS OF MEASUREMENTS				REMARKS
	DATE	BRANCHLET NO.			
2	16-2-44	1			17 fruit - removed to-day to be sent on to Pathologist to determine complaint
		2			7 same as before & no sign of opening 4 - { Dry dead area spreading 1 fruit dead & opened 2, slightly less than 1/2 1 " 1/4" dead round per 3 fruit from 1/4" to 3/4" area from rim 14 - new fruit which apparently developed 1943 Feb. flowering
		3	6 blossom on branchlet no. 2. Petals part falling		8 matured fruit (from 1941 branchlet - well developed & opened
		4	Several other sprigs of blossom on this tree, which carries fruit 1941 " 1943 (Feb) flower	6+6+6	3 dead fruit & opened - seen
		5			4 fruit none opened yet
		6			nil fruit - destroyed last
		7			12 fruit none open. All for topmost branchlet is dead due to burnity undergrowth.
3	16-2-44	1			5 fruit same as last year - no sign of opening
		2			1 fruit dead & opened 2 dead - same as last time inspection no sign of opening

no 2 may be caused by heat from fire. See last year note

Perhaps the fruit is attacked by cockatoos when it commences to open. The outside of fruits are marked as if held between a beak or claw

Notes re Red Flowering Gum

1988/1 West of Kentdale

13/11/41 The Gum. piceifolia is particularly noticeable ^{seasonal} by the reddish growth of new leaves.

In fact some of the trees ~~appear to be~~ almost have the brilliant appearance of being in flower.

30/12/42. - visited 1988/1 West of Kentdale

In bud - it was noticed that a general flowering was due to take place.

It is estimated that 90% of the trees were in bud, but none ~~were~~ ^{had} commenced to blossom as yet.

4th Feb 43 - again visited 1988/1

(i.e. 5 weeks since previous visit)

Most trees were in blossom

Some trees in full blossom
Some trees ~~had commenced~~ ^{commenced} to blossom & still carried a big percentage of buds not yet opened.

(BEES - bees were plentiful in the blossom.)

Period of Blossom - some blossom had already commenced to fall & the young fruit to develop.

1 ^{approx.} Seed matured in 12 months

see notes 9/6/41.

no definite observation of
germination test has been
carried on any particular ~~tree~~ ^{fruit}
tree (see no 3 below)

2 ~~Root~~ Absence of Regrowing
regrowth.

May be due to the destruction of
the seed by cork aunts or
other birds

Reference to

Tree no

Branchlets no.

2

25.

3

1+2

"

3 Observations to be of value must
be confined to life history from
time of budding to matured
fruit.

B-51-0

936
2

= 37534

Diseases noted.

Fruit & stalks are affected
by a complaint, apparently
hectereological, which causes the
outside cover to dry out & die.

See trees -

no 2. Branchlets 2, 3, 4, 6

Kendall R F Gum M

Date 17-11-43

- 1/ Controlled Burning
 - (A) Decided to leave all burning of outside breaks until 1944-45 season. as the area is reasonably safe from outside fires & also because much seed will be destroyed
 - (B) Patch Burning on Protected area.

The evidence to date show that burning under & in close vicinity of R F Gums prevents flowering & fruiting

- 2/ Heavy Seed Crop now on trees resulting from flowering last Feb. (1943).

- 3/ Fire Lias - decided that cultivating by cultivator & chandlers can do in early January

Thurs

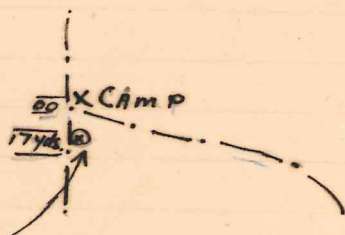
Feb.

450
1636
89

✓ Marks R Gum Reserve

✓ S.F. 41 Franklin

✓ Kentdale R Gum ↑



Tree nearest fireline —

Buds are just commencing
to open.

Date 4/2/43.

Date 18/3/43 (ie 7 weeks later)

Flowering completed & fruit
up to about 1" long grown.

Monday 8th

June 8

John

513

1653

60

Office

Cleaned Hopper & Samplers

WAB 763

To Cranbrook

J Holmes

WAB 763

- (1) Cleaned ignition points
- (2) mended paint