



## 1. OVERVIEW

There were no significant new records of sirenid from New South Wales during 1993/94. Infestation levels are low in most Districts. The small forests, Mt Macquarie State Forest (Bathurst District) and Dog Rocks State Forest (Oberon District), which experienced high levels of infestation last year have seen the sirenid populations collapse during 1993/94.

## 2. CONTROL OPERATIONS

### 2.1 DETECTION

Sirenid was recorded for the first time from a private plantation at Running Stream, to the north of Sunny Corner State Forest (Bathurst District) and this represents the most northerly extent of sirenid distribution along the Great Dividing Range in N.S.W.

### 2.2 MONITORING

The attached table summarises results of biological control monitoring for 1993/94.

#### Softwoods Region

Bathurst: Measured background levels of nematodes range from 12% - 63%. Trap tree levels ranged from 73% - 90%

Oberon: Overall nematode levels (background and trap trees included) averaged 75%. Sample size was smaller than is desirable, and these results will need to be confirmed during 1994/95.

Tumbarumba: Measured background levels of nematode infection ranged from 9% - 25%. Only small numbers of wasps emerged from the 12 trees sampled. Naturally struck trees remain difficult to locate. Trap trees yielded infection levels of 71% - 86%, but again only relatively small numbers of wasps emerged from the 23 trees sampled.

Tumut: Tumut appears to have problems with their sampling technique. This is to be followed up this coming season.

## **Southern Region**

Bombala: Measured background levels of nematode infection ranged from 3% - 10%. Trap trees yielded infection levels of 40% - 77%. Follow up work to check on programme implementation is to be scheduled.

Queanbeyan: Measured background levels of nematode infection ranged from 15% - 36%. Trap trees yielded infection levels of 92% - 93%.

Moss Vale: Measured background levels of nematode infection ranged from 1% - 3%. Trap trees yielded infection levels of 46% - 61%. Background infection levels are of serious concern and trap tree levels need improvement. Follow up work to check on programme implementation is to be scheduled.

### **2.3 OTHER MATTERS**

The Research Division's oversight of the State Forests' sirex programme was seriously disrupted by the departure of David Spolc early in 1994. As a consequence the normally close links with the District sirex Foresters has not been maintained and District personnel changes may have contributed to a fall off of the intensity of programme maintenance. The problem is recognised and a programme of re-education at District and Research Division level is being planned for October.

### **3. RESEARCH**

Work to assess the susceptibility of southern pine and Caribbean pine to sirex was implemented early in 1994. Early indications of results were not promising but a final report will be prepared after the trees are examined and dissected later in September 1994.

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NEW SOUTH WALES SIREX REPORT

SUMMARY OF NEMATODE INFECTION RATES IN SIREX FOR THE 1993/94 FLIGHT SEASON

REGION	DISTRICT	TREE	MALES			FEMALES			MEGARHYS		IBALIA	
			Present	Absent	% Infected	Present	Absent	% Infected	Male	Female	Male	Female
SOFTWOODS	BATHURST	NST (21)	770	445	63%	95	107	47%	17	17	318	225
		TT (15)	287	32	90%	115	18	86%	11	7	265	179
	BATHURST (LITHGOW)	NST (12)	250	488	34%	28	201	12%	0	0	200	187
		TT (12)	254	64	80%	81	30	73%	0	0	186	160
	OBERON	NST (3)	148	87	63%	72	18	80%	0	0	59	44
		TT (7)	441	142	76%	153	11	93%	43	14	456	311
		UTT (5)	251	43	85%	68	39	64%	48	31	227	77
		Oberon overall			75%			79%				
	TUMBARUMBA	NST (12)	24	71	25%	6	62	9%	8	27	41	45
		TT (23)	61	25	71%	24	4	86%	4	10	42	58
	TUMUT	NST (5)	0	0	0%	0	0	0%	0	0	0	0
		TT (21)	3	0	100%	1	0	100%	0	0	1	2
SOUTHERN	BOMBALA	NST (9)	13	116	10%	1	28	3%	5	25	4	4
		TT (17)	41	12	77%	2	3	40%	0	0	10	15
	QUEANBEYAN	NST (4)	31	180	15%	19	34	36%	0	0	34	52
		TT (6)	28	2	93%	11	1	92%	0	0	17	12
		UTT (1)	0	1	0%	0	1	0%	0	0	0	0
	MOSS VALE	NST (12)	27	764	3%	2	238	1%	0	3	178	110
		TT (3)	18	21	46%	14	9	61%	0	0	57	35
		UTT (2)	0	41	0%	1	3	25%	0	0	24	37