

BRIEFING NOTE

SUMMARY OF MIST NET TRIALS TO CONTROL
PARROTS CAUSING DAMAGE TO SOUTHWEST ORCHARDS

INTRODUCTION

Following discussions between representatives of CALM and the APB on 15/12/88, the then Hon Minister, Barry Hodge MLA, wrote to the WA Farmers Federation on 30 December 1988, inviting them to submit to CALM, a list of orchardists whose properties were being affected by parrot damage, and who wished to participate in the proposed mist net trials.

On 16 January 1989 CALM received a list (dated 9.1.89) of 10 names from the Western Australian Fruit Growers Association (Inc.)

On 23 January, a further list (dated 12.1.89) of 6 names was received. As the lists were received, District Wildlife Officers were given urgent instructions to inspect and provide reports and recommendations on the nominated properties. By 25 January, 15 of the 16 inspection reports on the nominated properties had been received. In addition to the 16 properties nominated, a number of others, who had made direct contact with the District Wildlife Officer were also inspected and reported on. By 31 January, all inspection reports had been received.

CALM procured 20 nets, measuring 40 feet long by 2 3/8" mesh. These nets were the largest mesh size available and were approved by the Australian Bird Study Association as being suitable for parrots and similar sized birds.

Based on the inspecting officers' reports and recommendations, ten orchardists were selected for participation in the trials. These orchardists are listed on Attachment 1.

Mist nets were despatched to the relevant district Wildlife Officers and on 3 February instructions were faxed to those officers to arrange the immediate issue of the mist nets to the selected orchardists.

Orchardists were required to provide a set of aluminium poles on which to erect the nets and had to put down a \$30.00 deposit on each net. The mist nets were to be used under the authority of a Damage License which was issued subject to a list of conditions which had been drawn up to try and prevent the accidental capture and death of protected non-target species. (See Attachment A).

Wildlife Officers carefully explained the license conditions, and instructed the orchardists in the erection and operation of the mist nets, two of which were allocated to each orchardist.

The trials concluded on 31 March 1989 by which time, some 650 parrots had been taken and destroyed. A summary of results appears at Attachment 1.

ORCHARDISTS COMMENTS

Orchardists were divided in their opinion as to the success of the mist nets, but all agreed that they were very time consuming to operate. Some were of the opinion that the license conditions were too restrictive.

Manjimup orchardists were the most vocal in their criticism of CALM and the mist net trials.

One criticism voiced by 2 of the 5 orchardists trialed in the Manjimup area was that the mist nets were made available too late, and should have been issued to them up to 6 weeks earlier when they claim the parrot damage was at its worst.

It should be noted however that during this period no complaints regarding parrot damage had been received from Manjimup orchardists either locally by the District Wildlife Officer, nor at this office. Furthermore, during discussions held in December 1988 with the then Minister Mr Hodge, and the WA Farmers Federation Inc., indicated that there was not a parrot problem in the Manjimup area. The areas of concern identified during these discussions centred on orchards in the outer Metropolitan area, the Donnybrook/Balingup area and the Kendenup/Mt Barker area, with stone fruit crops said to be worst affected.

This was also why the official Agricultural Protection Board mist net trials were centred on orchards in Kendenup and Donnybrook.

It was after publicity was given to the proposed orchardists mist net trials, that Manjimup orchardists came to the fore, resulting in some 11 applications from orchardists in the Manjimup/Bridgetown area to be included in the mist net trials. All 11 properties were inspected by a Wildlife Officer, and 5 were included as part of the trials. Four of those 11 properties (including G Maslin's), inspected during the period 23-25 January had sustained only minor or very little damage up to that time. The orchardists concerned however, were of the opinion that the damage would increase in subsequent months. (Note the above criticism that mist nets were issued 6-8 weeks too late).

Whilst not initially approved for issue of mist nets due to the low level of damage at the time, G Maslin was subsequently included in the trials, when his brother-in-law, E Granucci withdrew in favour of Maslin, despite the fact that Granucci appeared to have a greater damage problem. Maslin then proceeded to criticise CALM in the local press, saying that the nets being used were unsuitable and had been supplied too late to prevent the worst of the parrot damage.

Another criticism was that orchardists were not trained nor experienced in the use of mist nets and after issue of the nets, were left to "go for it" as best they could.

CALM was very much aware of the lack of knowledge and experience of these people in relation to mist nets, and this was one of the concerns regarding general use by orchardists.

This point resulted in further criticisms of the Department by the Royal Australian Ornithologists Union who expressed concern that un-trained people were authorised to use such equipment. They pointed out that their own registered bird banders who use mist nets have to undergo systematic training and accrue some two years field experience before being approved as an A class Bird Bander.

Other points raised by the RAOU included the need to avoid excessive trauma, injury and death to smaller non-target birds. They believed nets would have to be manned almost constantly, and that it was unlikely that orchardists would have either the time or inclination to do this.

RESULTS

Three of the orchardists involved in the trials were apprehended for breaching their license conditions relating to leaving their nets un-attended for periods of more than half an hour. One of the persons apprehended had dead birds still entangled in his nets, including a non-target species.

The results of the orchardists's trials, compiled from catch rates they submitted in their returns, shows a significant catch of non-target species (some 57 birds) of which there was a mortality rate of over 44%. A summary of results is shown on Attachment 1.

The high mortality rate, particularly amongst Red Wattle Birds, undoubtedly related to the difficulty in handling these birds, which have strong, sharp claws, and resist

aggressively. [It is speculated that orchardists may have found it easier to kill the bird in the net and then untangle the body, rather than try and remove them alive.]

Another ^{public} comment [by Maslin] was that the orchardists operating the mist nets had not been called on frequently enough during the period of the trials. This particular criticism is quite valid and was recognised by CALM. More frequent visits were not possible, even with this number of participating orchardists because of other demands placed on staff. There is concern that the usage of mist nets must be adequately overseen by wildlife officers to ensure compliance with license conditions.

It would appear that supervision of mist net use by orchardists would, beyond the capabilities of this Department if their use was extended to include additional orchardists and over an extended period. In such circumstances, there would probably be a much higher take of non-target species with a correspondingly higher mortality rate.

Several orchardists involved in the trials referred to the desirability of any mist netting to be done in future, being performed by licensed professional trappers.

Obviously this would save them the time, effort and expense of doing the job themselves, and is attractive to them for that reason.

In reality however it would be an impractical alternative for the following reasons:

- (i) There are three licensed bird trappers in the State, of whom one has had mist netting experience. To license additional trappers would be contrary to the present policy of phasing commercial bird trappers licenses out, and result in an increase in the commercialisation of our wild avian fauna.
- (ii) If orchards were to be given full protection throughout the most vulnerable period, whilst still ensuring mist nets were properly attended (to ensure all birds were removed as they were caught, thereby minimising mortality of non-target species) it would be necessary to license many more trappers. Only one property could be effectively serviced by a trapper at any one time, so if mist netting was to be generally accepted hundreds of experienced, reliable trappers would need to be found.

(iii) During the recent trials none of the parrots captured entered the avicultural trade, but were destroyed by the orchardists prior to removal from the nets. Professional trappers however would be looking to sell the birds caught, so would therefore have a vested interest in trapping those species of parrots which offer the best financial gain. Of the three species most commonly found in the orchards, the most valuable and sought after is the Western Rosella. Ironically, this species has been shown to cause the least damage. Conversely, the species which is the most numerous and which causes the most damage, is the species least sought after by the avicultural trade, this being the Red Capped Parrot.

(iv) Previous experience with licensed Manjimup trapper Kevin Osborne, who at one time was authorised to use a mist net on a trial basis, has shown conclusively that he concentrated his trapping efforts on Western Rosellas. Figures extracted from his returns for the past nine months reveal that he has taken 622 Western Rosellas while only capturing 3 Red Capped Parrots and no Twentyeights. Biased trapping will not alleviate the orchardists damage problem unless non commercial target species are destroyed. During this same nine month period Osborne's trapping was restricted to only seven properties, with four of those properties being trapped for only two or three days during the nine month period, indicating that he was selecting only those properties where he could trap Rosellas.

Even if other trappers were licensed it seems inevitable that they would also bias their trapping activities in a similar manner, particularly as the avicultural trade has previously expressed reluctance to accept any quantity of Red Capped Parrots and Twentyeights, without at least a similar number of Western Rosellas in the consignment.

The Australian market cannot cope with vast numbers of the three species of parrots which are trapped. Any increase beyond that which is produced by two or three trappers will result in a glut.

In conclusion, the results of these trials suggest that mist netting was no more effective or even as effective as shooting. By their own comments, a number of orchardists involved in the trials had achieved better results in terms of numbers of birds taken, by shooting than they did with mist nets.

For example, M. Armstrong stated that last year he shot about 250 parrots in a 6 - 8 week period. T. Starkie found the mist nets to be un-suitable and arranged an intensive shoot over two weekends, during which 200 parrots were taken. G. Maslin stated he shot about 220 parrots in a 6 week period prior to issue of the mist nets. Apart from the actual numbers of birds taken, this form of control would have at least some deterrent effect in keeping birds out of the orchards. There is no Australian market for these 670 birds which were taken from only three orchards. There are approximately 200 orchards in the South West.

229
233

RESULTS OF MIST NET TRIALS TO CONTROL PARROT DAMAGE IN ORCHARDS

| ORCHARDIST'S NAME | LOCATION OF PROPERTY | PERIOD OF USE OF MIST NETS | CATCH RESULTS OF TARGET SPECIES | CATCH RESULTS & MORTALITY OF NON TARGET SPECIES | COMMENTS |
|---|----------------------|----------------------------|---|--|--|
| Mr A.V. Bryant D/L No. 13152 (Apprehended 19/2/89 for breaching licence conditions) | Balingup | 5.2.89 - 19.2.89 | Twenty Eights - 19 Red-Capped Parrot - 2 Western Rosella 2 TOTAL NO. - 23 | Redwattle Birds - 2 (1 died) <u>MORTALITY RATE: 50%</u> | Bryant claimed license conditions were too restrictive, making trapping unviable. Claimed nets needed to be much bigger, so as to cover most of the orchard, and be able to be left unattended as they are in the eastern states. Suggested that nets should be operated by licensed trappers on orchards where damage is occurring. |
| Mr H.J. Betti D/L No. 13153 (Apprehended 20/2/89 for breaching licence conditions) | Balingup | 5.2.89 - 29.3.89 | Parrots (?) - 7 TOTAL NO. - 7 | Mudlark - 4 Honeyeater - 1 (died) <u>TOTAL NO. OF NON-TARGET SPECIES TAKEN: 5</u> <u>MORTALITY RATE: 20%</u> | Betti also claimed license conditions were too restrictive. Upon receiving letter of warning following his apprehension for breach of conditions, Betti discontinued using mist nets. Claimed it involved too much effort to check the nets every half hour. |

(Cont. 2)

| ORCHARDIST'S NAME | LOCATION OF PROPERTY | PERIOD OF USE OF MIST NETS | CATCH RESULTS OF TARGET SPECIES | CATCH RESULTS & MORTALITY OF NON TARGET SPECIES | COMMENTS |
|-------------------|----------------------|----------------------------|--|--|--|
| L. Giunelli | Mundaring | 3.2.89 - 15/2/89 | Rosellas - 24 Twenty Eights - 26 Red Capped Parrots - 2 TOTAL: - 52 | Magpie - 1 (released) TOTAL NO OF NON-TARGET SPECIES TAKEN: 1 MORTALITY RATE: NIL | Too busy picking to set and tend nets. Of the opinion mist nets were effective, but very time consuming. Did not set or use the mist nets at all between 17/2/89 and 9/3/89 as the parrots had disappeared from the orchard during this period. |
| Joe Vergone | Dwellingup | 6.2.89 - | Parrots - 5 Species not stated | NIL | When routine inspections made by W/O's on 9/3/89, Vergone stated he had only used the mist nets for a few and had not used them at all for the past 3 weeks. To that time he had only caught 5-6 birds. Had employed a person to shot parrots for a few hours a day over a one or two week period. Found tending nets was too time consuming. Lou Vergone said mist nets were not practical when busy picking fruit. |

(Cont. 3)

| ORCHARDIST'S NAME | LOCATION OF PROPERTY | PERIOD OF USE OF MIST NETS | CATCH RESULTS OF TARGET SPECIES | CATCH RESULTS & MORTALITY OF NON TARGET SPECIES | COMMENTS |
|-------------------|----------------------|----------------------------|--|---|---|
| Colin Weight | Kendempup | 8.2.89 - 9.3.89 | Twenty Eights - 9 Red-Capped Parrots - 14 Regent Parrots 17 Western Rosellas - 20 TOTAL NO. - 60 | Swallow - 1 (released unharmed) Yellow-tailed Thornbill - 1 (died from injuries) Little Wattle Birds - 6 (released unharmed) Stubble Quail - 1 (released unharmed) Bronzewing Pigeon - 1 (released unharmed) | Weight had use of the mist nets for total of 30 days, during which he caught 60 parrots at an average of 2 per day. On 15 days no parrots were taken and on 4 other days only one parrot was taken. The largest catch in any one day was 11 parrots on the first day. |
| G. Sandilands | West Kendempup | 20.3.89 - 31.3.89 | Twenty Eights - 6 TOTAL NO. - 6 | | Sandilands runs a Protea Nursery and was not strictly part of the orchard mist net trials. He stated however that he was grateful for the the opportunity to trial the mist nets but conceded that the mist nets were not effective for controlling parrots. The 6 parrots taken by Sandilands were caught over 3 days. |

TOTAL NO. OF NON-TARGET SPECIES TAKEN: 10
MORTALITY RATE: 10%

279
250

276
/ 220

(Cont. 4)

| ORCHARDIST'S NAME | LOCATION OF PROPERTY | PERIOD OF USE OF MIST NETS | CATCH RESULTS OF TARGET SPECIES | CATCH RESULTS & MORTALITY OF NON TARGET SPECIES | COMMENTS |
|-------------------------------|----------------------|----------------------------|---|---|---|
| R. Armstrong D/L No. 13508 | Bridgetown | 10.2.89 - 31.3.89 | Twenty Eights - 44 Red-Capped Parrots - 43 Western Rosella - 15 TOTAL NO. -102 | Red Wattle Birds -24 (18 died in nets) Unidentified Bird - 1 (died in net) <u>TOTAL NO. OF NON-TARGET SPECIES TAKEN: 25</u> <u>MORTALITY RATE: 80%</u> | Armstrong happy with results. Would continue to use mist nets. No comparison with other methods available, as no other method was used during trials. Wants nets to be available much earlier as problem had allegedly decreased by time nets became available. |
| M. Armstrong D/L No 13507 | Bridgetown | 10.2.89 - 31.3.89 | Twenty Eights - 42 Red-Capped Parrots - 24 Western Rosella - 11 TOTAL NO. - 77 | Red Wattle Birds - 6 (3 died in nets) Magpie - 1 (released) <u>TOTAL NO. OF NON-TARGET SPECIES TAKEN: 7</u> <u>MORTALITY RATE: 43%</u> | Armstrong happy with results and would continue to use mist nets. Found removing birds from nets to be a slow process. Last year shot about 260 parrots in 6-8 week period. Wants nets to be available earlier in the year. |

(Cont. 5)

| ORCHARDIST'S NAME | LOCATION OF PROPERTY | PERIOD OF USE OF MIST NETS | CATCH RESULTS OF TARGET SPECIES | CATCH RESULTS & MORTALITY OF NON TARGET SPECIES | COMMENTS |
|----------------------------|----------------------|----------------------------|---|--|---|
| T. Starkie D/L No 13509 | Manjimup | 10.2.89 - 31.3.89 | Twenty Eight - 25 Western Rosella - 14 TOTAL NO. - 39 | Red Wattle Bird - 1 (released) TOTAL NO. OF NON-TARGET SPECIES TAKEN: 1 MORTALITY RATE: NIL | Starkie stated nets were totally unsuitable to his circumstances. Would not use again. Found removing birds a time consuming affair. Arranged an intensive shoot over two weekends and shot over 200 parrots. Only caught birds in the nets on 8 days during period of use. Best daily catch being six birds. |
| G. Maslin D/L No 13510 | Manjimup | 10.2.89 - 31.3.89 | Red-Capped Parrots - 50 Western Rosella - 22 Twenty Eights - 12 TOTAL NO. - 84 | Non-identified Species (released) - 4 TOTAL NO. OF NON-TARGET SPECIES TAKEN: 4 MORTALITY RATE: NIL | Is convinced mist netting is only solution due to past experience with licensed trapper K. Osborne. Shot over 220 parrots in the 6 week period prior to issue of mist nets but claimed shooting was more labour intensive. Claimed nets were issued too late. Said nets should have been issued 6 weeks earlier when problem was very bad. Also wants nets available in May when he claims the problem will increase again. |

275
229

(Cont. 6)

| ORCHARDIST'S NAME | LOCATION OF PROPERTY | PERIOD OF USE OF MIST NETS | CATCH RESULTS OF TARGET SPECIES | CATCH RESULTS & MORTALITY OF NON TARGET SPECIES | COMMENTS |
|--|----------------------|----------------------------|---|--|---|
| R. Martin D/L No 13511 (Apprehended on 8/3/89 for breaching license conditions | Pemberton | 10.2.89 - 31.3.89 | Twenty Eights - 107 Red-Capped Parrots - 88 TOTAL NO. - 195 | Red Wattle Bird - 1 Swallow - 1 (both released) TOTAL NO. OF NON-TARGET SPECIES TAKEN: 2 MORTALITY RATE: NIL | Martin expressed a mixed reaction. Was happy with results but not with time involved. Probably would not wish to use mist nets again. Felt nets should have larger mesh and thicker gauge. Said nets were issued too late, when problem had declined. Will be trying alternative methods in future. Thinks netting would be most effective when used in conjunction with other methods. |

DAMAGE LICENSE CONDITIONS FOR USE OF MIST NETS

- (i) Only mist nets supplied by CALM are authorised to be used under this license. The specifications of such nets shall be 2 3/8" mesh by 40 feet in length.
- (ii) Not more than two such nets will be approved for use on any one property.
- (iii) Mist nets may only be set and used within the boundaries of orchards where fruit production is being damaged by parrots or cockatoos.
- (iv) Mist nets shall only be set during the periods dawn to 1100 hours, and 1500 hours to dusk.
- (v) Mist nets must be attended at all times when in use, and should be lowered to the ground or dismantled between the hours of 1100 and 1500, and on such days when no one is in attendance.
- (vi) Trapped birds must be removed from the net at not more than 30 minute intervals.
- (vii) All non-target species (ie any species other than Twenty-eight Parrots, Red-Capped Parrots, Western Rosellas, Regent Parrots or White-tailed Black Cockatoos) must be released immediately upon capture.
- (viii) Target species taken under authority of this license may not be sold or disposed of for gain or reward, but must be humanely destroyed immediately upon capture.
- (ix) The licensee shall keep a written record of all birds taken by means of the mist nets, whether dead or alive. Such record shall include the date taken, species taken, and number of each species taken each day, and shall be recorded on the forms provided. This information is to be made available to any Wildlife Officer upon request.
- (x) The licensee shall pay a deposit of \$30.00 to CALM for each mist net issued to him. Such deposits will be returned to the licensee upon return of the mist nets to CALM in a reasonable condition.
- (xi) The licensee shall take all reasonable care to avoid unnecessary damage to the mist nets on issue to him.
- (xii) The use of such mist nets shall cease immediately upon instruction of a CALM officer.
- (xiii) Any breach of any of the above license conditions will render the licensee liable to prosecution and will result in immediate cancellation of this license.

222
5/22