Cheryl Myers P.O. Box 398

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## Geraldy Transport Units - Crate Size and Capacity

The SAHPA Management Committee member Paul Springett has been liaising with Dr. Rob Marshall who has given us a new calculation to be used in our code of practice for calculating transport unit capacity for "Forced Ventilation" or what I have described in this document as "Thermostatically controlled Ventilation".

The New Transporter Main Unit built by Geraldy in Germany has 4 thermostatically operated fans which pump air through to each of the 108 crate bays. The New Trailer also built by Geraldy has 3 thermostatically operated fans which pump air through to the 48 crate bays.

Crate Size - the final size which we agreed on was 1050 mm wide, 850 mm deep and 235 mm high. We reduced the depth of the crates so we could maintain a convenient sized central corridor.

This means that the central corridor will be 460 mm wide which is slightly wider than the current Semi Trailer (440mm)

Below is a spreadsheet which we will use for all future calculations.

## Normal Ventilation

| Type of Crate | Height mm | Width mm | Depth mm | Area cm2 | 1 night Divisor | 2 night Divisor | Number of Birds 1 night | Number of Birds 2 nights | Rounded Number of Birds 1 night | Rounded Number of Birds 2 night |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Geraldy SAHPA Crate | 235 | 1050 | 850 | 2097.38 | 69.8 | 80.0 | 30.0 | 26.2 | 30 | 26 |

Thermostatically Control Forced Ventilation

| Type of Crate | Height mm | Width mm | Depth mm | Area cm3 | 1 night Divisor | 2 night Divisor | Number of Birds 1 night | Number of Birds 2 nights | Rounded Number of Birds 1 night | Rounded Number of Birds 2 night |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Geraldy SAHPA Crate | 235 | 1050 | 850 | 2097.38 | 60.0 | 70.0 | 35.0 | 30.0 | 35 | 30 |

Therefore the number of birds that the new transporter can carry is :

| Race Type | Number of <br> Birds/Crate <br> Thermostatically <br> Ventilated | Main <br> Unit <br> Crates | Main <br> Unit <br> Birds | Trailer <br> Crates | Trailer <br> Birds | Total <br> Birds |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: |
| One night transport | 35 | 108 | 3780 | 48 | 1680 | 5460 |
| Two night transport | 30 | 108 | 3240 | 48 | 1440 | 4680 |

The capacity of the Main Unit on a 1 night race is 3,780 birds or on a 2 night or more race 3,240 .
The capacity of the Trailer on a 1 night race is 1,680 birds or on a 2 night of more race 1,440.
Total capacity for both units being used on 1 night race is 5,460 or 4,680 on a 2 night race.

Yours In Sport,
Gavin Harris
Vice Chairperson - SAHPA
On Behalf of SAHPA Committee of Management

