**SPRAY APPLICATION RECORD**

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| **Employers Name** |  |
| **Property Address** |  |
| **Employers Contact Name** |  | **Mobile**  |  |
| **Phone**  |  | **Email**  |  |

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| **Description of where pesticide was applied**  |  |
|   |
| **Personal Protective Equipment Used** | **Application** **Equipment Used** | **Pest Type** | **Application Details** |
| Overalls |  | Backpack |  | Weed |  | Spraying Speed (km/hr)  |  |
| Rubber Gloves |  | Spray Tank / Handgun |  | Insect |  | Water Volume (lts/ha)  |  |
| Respirator/Mask |  | Boom Spray |  | Disease |  | **Nozzle**  |  |
| Protective Eye Wear |  | Drench Gun/Vaccinator |  | Int/Ext parasite |  | Pressure  |  |
| Hat |  | Other: |  | Vertebrate Pest |  |  |  |
| Other: |  |  |  | Other |  |  |  |
| **No Spray Zone** | **N/A** |  | **Yes** |  | **Neighbours Notified** |  | **Date Notified** |  |
| **Treatment Comments/Instructions: (If providing a property map ensure to include the Order in which individual areas were treated)** |

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|  **Operator Name****(person who applied** **the pesticide)** |  **Start** **Time** | **Finish Time** | **Chemicals Applied (in order added to tank)** | **Label** **Mixing Rate** | **Amount Mix Used** |
| **Trade Name** | **Active Constituents** |
|  |  |  | 1 |  | 1 |  |  |  |
| 2 |  | 2 |  |  |

 **SITE WEATHER DURING APPLICATION**

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| --- | --- | --- | --- | --- | --- | --- |
| **Time** | **Temperature** | **Rainfall** | **Wind Speed** | **Wind Direction** | **Humidity** | **Delta T** |
| **Start** |  |  |  |  |  |  |
| **If Changes** |  |  |  |  |  |  |

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| **Spray Operator’s Comments** |
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| **Signature of person making the record** |  | **Application Date** |  |

**Areas highlighted in red are the minimum required for completing records in New South Wales as set out in the Pesticides Regulation 2017 (25 August), Part 4 Records relating to the use of pesticides.**

**PLEASE ENSURE TO CHECK WITH YOUR LOCAL STATE/TERRITORY AUTHORITIES TO DETERMINE WHAT RECORD REQUIREMENTS YOU MUST FOLLOW WHEN USING PESTICIDES**

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| **PRACTICAL CALIBRATION WORKSHEET**  |
| **Tick the unit calibrated** | **Backpack** |  |  |  |
| **Chemical Trade Name** |  |
| **Chemical Label Rate (L/ha)** | Label rate for General Weed Control  | **=**  |
| **Calibration Requirement**  | To calculate how much chemical to put in each backpack  |
| **Step** | **Instructions:**  | **Answers**  |
| 1 | **Mark out the 10 m2 area to test spray**Mark out an area of: 10 m x 1 m. This is 10 m2. This is an area of 1/1000th of a hectare.(1 ha = 100 m x 100 m or 10,000 m2 ) |   10 mts x 1mt |
| 2 | **Measure time to spray 10m2 and your walking speed**Use the correct operating pressure (or a constant pressure). Walk at a comfortable speed and make sure to cover the whole area evenly.Time how long it takes to spray this area with water.Walking speed = 10 x 3.6 ÷ time in seconds | **Time in seconds**  **seconds**10 x 3.6 ÷ = km/hr |
| 3 | **Measure output of spray nozzle used to cover 10 m2**Spray into a measuring jug for the same number of seconds it took to cover the 10 m2 area.Record how much is in the measuring jug in mls. This is the output in mls per 10m2  | **Output per 10m2** **mls/10m2** |
| 4 | **Determine the capacity of the tank in millilitres** **Size if tank in L x 1000** |   **x****= mls** |
| 5 | **Calculate how much area the spray bottle/tank will cover** **mls in bottle/tank ÷ Output in mls per 10m2 X 10m2****= area the tank will cover in m2** |  ÷ x 10= **m2** |
| 6 | **Calculate the chemical concentrate needed per tank****Size of tank in L X Chemical label rate** **= Chemical Concentrate required per tank** | x= **mls**  |
|  **Use the figures you record outside to complete these sections of your spray record** **Use the Delta T Chart on pg 87 of the manual to work out the Delta T for your record sheet**  |
| **Wind Speed** |  **Km/hr** | **Wind Direction** |  |
| **Temperature on the day** |  **°C** | **Humidity on the day** |  **%** |
| **Delta T** |  | **Rain on the day** |  |

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| **PRACTICAL CALIBRATION WORKSHEET** |
| **Tick the unit calibrated** | **Powered Hand Gun** |  |  |  |
| **Chemical Trade Name** |  |
| **Chemical Label Rate (L/ha)** | Selected Label Mixing Rate  | **=**  |
| **Calibration Requirement**  | To calculate how much chemical to put in each backpack  |
| **Step** | **Instructions:**  | **Answers**  |
| 1 | **Mark out the 10 m2 area to test spray**Mark out an area of: 10 m x 1 m. This is 10 m2. This is an area of 1/1000th of a hectare.(1 ha = 100 m x 100 m or 10,000 m2 ) |   10 mts x 1mt |
| 2 | **Measure time to spray 10m2 and your walking speed**Use the correct operating pressure (or a constant pressure). Walk at a comfortable speed and make sure to cover the whole area evenly.Time how long it takes to spray this area with water.Walking speed = 10 x 3.6 ÷ time in seconds | **Time in seconds**  **seconds**10 x 3.6 ÷ = km/hr |
| 3 | **Measure output of spray nozzle used to cover 10 m2**Spray into a measuring jug for the same number of seconds it took to cover the 10 m2 area.Record how much is in the measuring jug in mls. This is the output in mls per 10m2  | **Output per 10m2** **mls/10m2** |
| 4 | **Calculate water volume needed per hectare**Multiply the number of mls in step 3 by 1000 to give a water application rate per hectare in millilitres. | **Output per hectare**1000 x mls (output)= **mls/ha**= **litres (water) per ha** |
| **To convert mls/ha to L/ha****(Note: Number of mls ÷ 1000 = No of lts per ha )****e.g. 360000 ÷ 1000 = 360 lts/ha** |
| 5 | **Calculate how many tanks to treat 1 hectare** Litres water/hectare ÷ Capacity of tank (lts)**= No of tanks** | ÷ = **Tanks** |
| 6 | **Calculate the chemical concentrate needed per tank**  Label Chemical Rate ÷ No. of Tanks (use label rate in L per ha) **= Chemical Concentrate per tank (lts)** | ÷= l**ts** per tank  |
|  **Use the figures you record outside to complete these sections of your spray record** **Use the Delta T Chart on pg 87 of the manual to work out the Delta T for your record sheet**  |
| **Wind Speed** |  **Km/hr** | **Wind Direction** |  |
| **Temperature on the day** |  **°C** | **Humidity on the day** |  **%** |
| **Delta T** |  | **Rain on the day** |  |

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| **Practical Calibration Exercise - Boom Spray** |
| You are intending to use a boom sprayer to apply herbicide to a  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ha** paddock.* The chemical label says to apply **\_\_\_\_\_\_\_\_\_\_\_ litres of chemical per hectare**.
* To check speed carry out calculation in Step 1.
* This chart is set up for 24 nozzles (50 cm apart on the boom).
* The spray tanks holds **\_\_\_\_\_\_\_\_\_\_\_\_\_\_litres**.
* Spray pressure is:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bar or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_psi

Using clean water, the flow (mls) for each of the following 12 nozzles for 1 minute was measured as:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **Total Output** |
|  |  |  |  |  |  |  |  |  |  |  |  |  = **L/Min** |
| **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Average Output** |  = **L/Min** |

**Nozzle Name/Number:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Nozzle Colour:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_****From your nozzle chart what does a new nozzle will put out:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_mls/min.** **Replace nozzles that vary in output +/- 10% from the manufacturers recommended output.** **Are there any nozzles that should be replaced: YES / NO (circle the nozzle number)** |
| ***Step*** | ***Instructions*** | ***Answers*** |
| *1* | Step 1: Calculate Speed SPEED Km/Hr = ( ) x 3.6 ÷ ( )  Distance M Time Sec = | ***Km/hr*** |
| *2* | Step 2: Calculate Application Rate in Litres per HectareAPPLICATION RATE = ( ) x 600 ÷ ( ) ÷ ( )  Total Output All Nozzles Spray Width Speed = | ***Lt/Ha*** |
| *3* | Step 3: Calculate How Much Chemical to Add to the TankCHEMICAL IN TANK = ( ) x ( ) ÷ ( )  Tank Size Chemical Rate L/ha = | ***Litres*** |
| *4* | Step 4: Calculate how much water is needed 1: Calculate the area to be sprayed: (10,000 sqm = 1 ha, or 2.5 acres = 1 ha)2: Water needed (L) = Area to be sprayed (ha) x Application rate (L/ha) Water needed = \_\_\_\_\_ \_\_\_\_ ha x \_\_\_\_\_\_\_\_ l/ha =  | ***Litres*** |
| *5* | *Step 5: Calculate how many tank loads to do the job* *( ) ÷ ( )*  *Total water needed Tank =* | ***No. Tank Loads*** |

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| **Practical Calibration Exercise Drench Gun/Vaccinator** |
| **Tick the unit calibrated** | **Drench Gun** |  | **Vaccinator** |  |
| **Chemical Trade Name** |  |
| **Chemical Label Rate**  | **Dose rate of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| **Step** | **Instructions** | **Answers** |
| 1 | **What is the dose rate for the heaviest animal?** |  **mls** |
| 2 | **Squirt 10 shots into an accurate measuring cylinder** |  Total for 10 shots  **mls** |
| 3 | **Average the total of the 10 shots****Total mls for 10 shots ÷ 10 =** | Test Average for 10 shots **mls** |
| 4 |

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| **Compare your test result with the mark** **on the drench gun/vaccinator you have** **chosen in step 1. If the dose rate is not** **within 5%of the mark then re-adjust the** **device and repeat the calibration** **process.**  |

 | Difference =  **mls** |
| % difference (√) |
| **More than 5%** |  | **Less than 5%** |  |
| 5 |

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| **This step may have to be done more** **than once to get the dose accurate.** **From this calibration exercise does your** **equipment need to be recalibrated** |

 | Tick (√) the correct box |
| **YES** |  | **NO** |  |