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RHDV1 K5 Release Report – Ravenssthorpe Shire (Autumn 2020)

During March 2020, R.A.I.N. released the K5 strain of the RHDV1 virus throughout the Ravenssthorpe Shire. The widespread virus release occurred across 20 locations, including properties at Mt Madden, West River, north Ravenssthorpe, the Oldfield River, Maydon road (east of Ravenssthorpe) and the southern edge of the Kundip Nature Reserve. The Everett Country Golf Club, Krystal park estate, CWA, and blocks between Barnett Street and the Esplanade in Hopetoun were also included. The work was carried out by an authorized user of RHDV1-K5 contracted by Southern Biosecurity Group. A Google Earth Pro KMZ file showing where the control activity took place has also been supplied to SBG with this report as specified in the project agreement.

The identified hotspots and potential release locations were screened prior to free feeding and virus release to ensure sufficient presence of rabbits. A total of 130kg of oats were supplied by Moolyall Farm and the Calicivirus was sourced through SBG and purchased from the Elizabeth Macarthur Agricultural Institute in New South Wales. The virus came packaged with tubes and distilled water and was stored below 4 degrees Celsius until the time of reconstitution. Twenty vials of the virus were supplied and used during this release.

The diluted suspension of the lyophilized virus was added to the appropriate proportion of oats on the mornings of the release days. The virus was directly applied to the oats via spray bottle. To induce the desired, widespread outbreak of RHD within the Ravenssthorpe Shire area, the treated oats were deployed in hand-broadcasted trails at foraging areas in lengths appropriate to the local rabbit density and in small piles near warren entrances and frequently visited scat sites across the 20 locations. The release involved free feeding across the Hopetoun sites on the 16th of March and at Krystal Park on the 20th of March. Free feeding also occurred (as an in-kind contribution by the landholders) on the 20th of March at some West River properties. Treated oats were deployed at all identified hotspot sites between the 18th and 25th of March. Sighting, damage and control data from this control program has been uploaded to the 'FeralScan' database.

Site visits around Hopetoun, Krystal Park and the Golf Course were carried out one week after the virus release to monitor the uptake of the treated baits after release. At the sites visited, 100% of the oats were eaten. This indicates the successful uptake and introduction of the RDHV1-K5 calicivirus into local rabbit populations. Anecdotal reports of decreased rabbit numbers from follow up phone calls with landholders around Hopetoun affirmed a successful uptake of the K5 virus into the local rabbit population. However, the majority of land owners in the West River, North Ravenssthorpe and Oldfield's regions reported sustained diggings and continued sightings around treated sites four weeks after the autumn release.

Although there has been little evidence of an effective outbreak in the areas to date, the cooperating West River, North River and Oldfield's land managers will be liaised with periodically during late autumn and winter, when vector (fly / flea / mosquito) activity is highest, to check for signs of decreased activity and population size. The Hopetoun sites will also be monitored to check rabbit numbers over this period. The conflicting anecdotal reports between the areas may reflect the density of the release sites. It may also infer that the virus is dispersed faster within large rabbit populations when released in a more concentrated area, or that increased vector activity in wetter months is needed to spread the virus effectively. These findings reiterate that RDHV outbreaks are not a panacea for rabbit control, and that additional 'mop up' efforts and removal the critical resources, such as warren ripping, may yield a further decrease in local rabbit populations.

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