



Department of
Primary Industries

WEEDS ACTION PROGRAM

2015–2020 REPORT



No Space for
Weeeeeeeeeeeeeeeeeeeeeeds

New South Wales Weeds Action Program Report 2015-2020

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The information contained in this publication is based on knowledge and understanding at the time of writing (December 2020). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of Department of Primary Industries or the user's independent adviser.

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EXECUTIVE SUMMARY

Weeds are estimated to cost NSW over \$1.8 billion a year (\$1.3 billion to the farming sector), not including social and environmental costs.



They reduce viability of primary industries, threaten survival of native plants and animals, reduce the natural beauty of our state and impact our health and well-being.

The NSW Weeds Action Program is the NSW Government's initiative to reduce the impact of weeds in NSW. This report details investment between 2015 and 2020.

In 2015-2020 the NSW Weeds Action Program provided \$57.6 million to reduce the impact of weeds in NSW, attracting \$108.2 million in partner contributions.



Property inspections, training, extension, compliance, planning, coordination and control occurred in each region of the state. Activities aligned to the goals of the NSW Invasive Species Plan – working towards prevention and eradication of new weeds and building people's capacity to manage weeds. In 2015-2020 the Program supported multi-agency frameworks and partnerships to conduct over:



Preventing new weeds provides a 100:1 return on investment.



With hundreds of weeds already established in NSW, priorities for government investment sit with preventing, eradicating and containing new weeds in the early stages of invasion where return on investment is greatest. Management of widespread weeds is supported where it provides greater benefits, increases effectiveness or targets effort to reduce their impacts.

In 2015-2020 the Program targeted \$14.6 million to prevent the establishment of new weeds, avoiding \$1.46 billion in potential lost production and control costs to NSW communities.



PREVENTING WEEDS PROTECTS OUR LAND, WATER AND FOOD PRODUCTION.

ABOUT THE NSW WEEDS ACTION PROGRAM



The Program operates through the provision of funds to over 100 partner organisations around the state

Most partners are local control authorities in local government and most funded activities are inspections of private land, high-risk sites and high-risk pathways. The Program allows weeds officers to visit farms and support farmers face-to-face.

The NSW Weeds Action Program gives farmers peace of mind:

“ having the council weeds officer who understands weeds come out...they’ll spot them just like that...it’s absolutely financially beneficial to us that they come out looking for those new weeds that will get quite prevalent before you even know they’re there...it helps us run a viable business ”

Ben Wirth, Wirth Cattle Company, Glen Elgin, NSW.

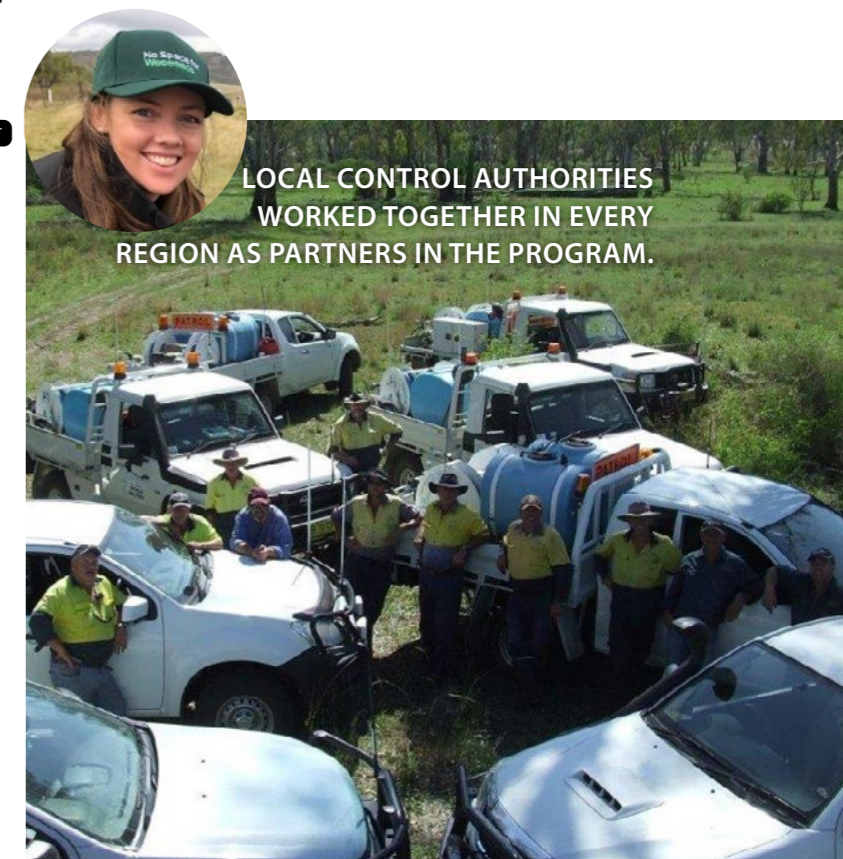
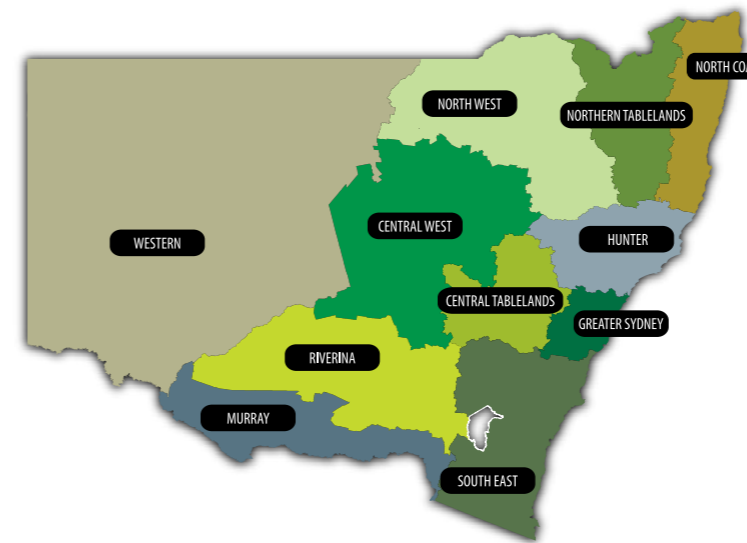
The Department of Primary Industries administers the Program in consultation with the State Weeds Committee – an independent Ministerial committee. Local Land Services coordinate delivery through local control authorities and other partners in each region. Applications for funding are assessed against the Program Guidelines and the NSW Invasive Species Plan to maximise the impact of the investment for the State.

The budget is released annually by NSW Treasury and announced by the Minister for Primary Industries. Funds are apportioned to the 11 Local Land Services regions based on the relative effort and cost of reducing the impact of weeds in each region, depending on variables like weed load, terrain, property numbers and property sizes. A portion of funds is reserved for state-wide activities.

Investment aligns to the four goals of the NSW Invasive Species Plan. In 2015-2020 funds aligned to the goals as follows:

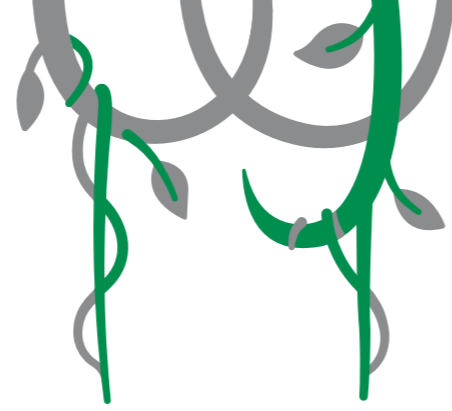
Invasive Species Plan Goal	Program \$ million	Partner \$ million	Total \$ million
Goal 1 Exclude and prevent new weeds	6.9	7.7	14.6
Goal 2 Eradicate and contain new weeds	24.1	29.7	53.8
Goal 3 Reduce impact of widespread weeds	4.8	41.1	45.9
Goal 4 Build capacity to manage weeds	18.9	28.1	47

\$3.6 million supported regional coordination across the 11 Local Land Services regions.



LOCAL CONTROL AUTHORITIES WORKED TOGETHER IN EVERY REGION AS PARTNERS IN THE PROGRAM.

KEEPING THE WORST WEEDS AT BAY – FAST FACTS



Preventing new weeds from becoming widespread in NSW is the best use of resources, given the costs and impacts they cause elsewhere:

- **Parthenium weed** affects over 60 million hectares of land in Queensland, costing \$69 million each year in beef production losses, as well as causing health problems that incur an extra \$20 per person in infested areas. Between 2010 and 2015 parthenium weed was detected at and eradicated from 35 sites in NSW.
- **Hawkweeds** infest over 480,000 hectares in 33 states of the USA, costing over US\$58 million in control each year. In New Zealand they invade over 6 million hectares, reducing stocking rates by 30% and causing farm abandonment in some areas. Left to reach their full distribution, losses to the Australian grazing industry would be over \$66 million each year. Conservative models show a return ratio of 321:1 for the ongoing eradication program in Kosciusko National Park and surrounding private grazing lands.
- **Rubber vine** infests over 700,000 hectares in Queensland, reducing beef production by 25% and costing the grazing industry \$18 million annually in control and mustering costs. Targeted surveillance in 2019 and 2020 detected rubber vine in 4 locations in Western NSW.
- **Alligator weed** has the potential to cost irrigation farming in NSW up to \$250 million each year. Containment programs protect the \$50 million Sydney Basin turf industry and the \$150 million Hawkesbury Nepean vegetable industry in NSW.
- **Tropical soda apple** infested over 500,000 hectares in Florida over five years, with control costs over \$15 million each year. Herbicide cannot kill the seeds inside the fruit, and each plant can produce 35,000 seeds. Tropical soda apple is under an eradication program in NSW.
- **Kidney-leaf mud plantain** has been shown to reduce yields by up to 68% in major rice growing areas of Europe (France, Italy, Portugal, Spain and Albania) and required the industry to start using pre-emergent herbicides. Kidney-leaf mud plantain was detected and responded to in the Riverina in 2019.

Preventing new weeds saves costs and impacts like those caused by weeds already widespread in NSW:

- **Lantana** costs the Australian grazing industry \$121 million each year in production losses and control costs and infests over 4 million hectares.
- **Blackberries** cost the Australian grazing industry \$41.5 million each year in production losses and control costs and infest over 9 million hectares.
- **Hudson pear** infests close to 100,000 hectares of land in North West NSW and restricts grazing, reduces biodiversity and causes serious injuries to people. Sustainable control is estimated to contribute a net present value of over \$70 million.



EXCLUDE AND PREVENT NEW WEEDS

\$6.9 million (12% of total Program funds) contributed to excluding and preventing the establishment of new weeds. This attracted **\$7.7 million** in partner contributions.

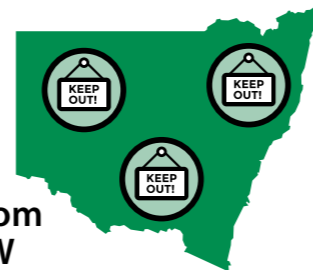
Funds supported:

- ✓ weed risk assessment to prioritise and triage new weeds with the worst potential impacts
- ✓ tools, training and increased capacity for stakeholders to recognise, detect and report new weeds
- ✓ over 44,000 exclusion and prevention activities.

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weeds are targets for exclusion from NSW



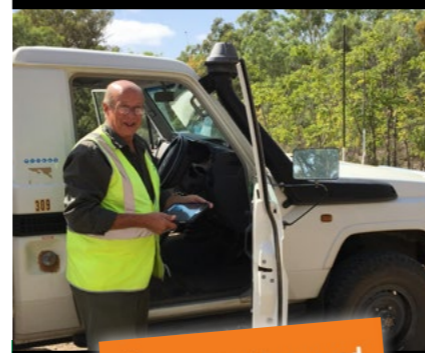
61
weeds are targets for exclusion from parts of NSW



Weeds staff and detector dogs were trained to find new weeds like hawkweed and alligator weed



Drones and helicopters were used around the state to inspect high risk sites over large areas and where access was difficult.



Over 30,000 high risk sites, pathways and carriers like waterways, flood zones, markets, saleyards, thoroughfares and headers were inspected for new weeds.



Communication campaigns encouraged communities to call for assistance if they spotted a new weed or report the prohibited trade of high-risk weeds if they saw them for sale.



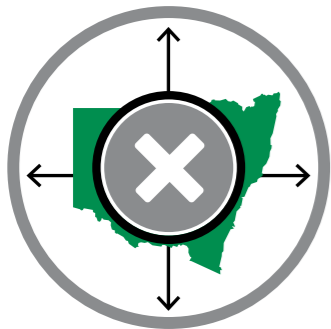
Over 2000 scientific weed risk assessments were completed to identify and prioritise biosecurity risks to the state.

ERADICATE AND CONTAIN NEW WEEDS

\$24.1 million (42% of total Program funds) contributed to eradicating and containing new weeds. This attracted **\$29.7 million** in partner contributions.

Funds supported:

- ✓ timely detection of new weeds
- ✓ rapid responses to eradicate or contain new weeds
- ✓ over 72,000 eradication and containment activities.



78 weeds are targets for eradication in all or parts of NSW



Over 70,000 surveillance inspections were conducted to monitor eradication and containment of weeds like hawkweed and tropical soda apple.



Over 2,600 responses were made to new incursions of weeds like parthenium weed (found in crops and on poultry farms), kidney-leaf mud plantain (found in a rice crop), black knapweed (found on a grazing property) and Mexican feather grass (found in formal gardens).



Over 1,300 control activities were carried out to eradicate or contain weeds like willow rhus, alligator weed, bitou bush and boneseed.

REDUCE IMPACTS OF WIDESPREAD WEEDS

\$4.8 million (8% of total Program funds) went towards reducing the impacts of widespread weeds. This attracted **\$41.1 million** in partner contributions.

Funds supported:

- ✓ prioritising programs where benefits are greatest and where weeds have greatest impacts on primary industries, the environment, human health or infrastructure
- ✓ over 46,000 effective and targeted control activities



Over 4,500 planning activities were carried out with landholders to help them prioritise and manage widespread weeds having the greatest impacts on their properties.



Investment in biological control programs occurred for widespread weeds like Scotch broom, Hudson pear, Madeira vine, cat's claw creeper and salvinia.



Facilities at Orange and Grafton mass-reared and released over 100,000 biocontrol insects into infestations across NSW, and mass-rearing facilities at Lightning Ridge were seed-funded.



BUILD CAPACITY TO MANAGE WEEDS

\$18.9 million (33% of total Program funds) went towards building people's capacity to manage weeds. This attracted \$28.1 million in partner contributions.

Funds supported:



- ✓ communication campaigns that increased awareness and understanding
- ✓ opportunities for community involvement
- ✓ knowledge bases and stakeholder access to information
- ✓ over 3,600 activities supported a skilled, qualified workforce and trained stakeholder groups and volunteers

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Property inspections provided face-to-face support for landholders - one of the most effective forms of engagement.



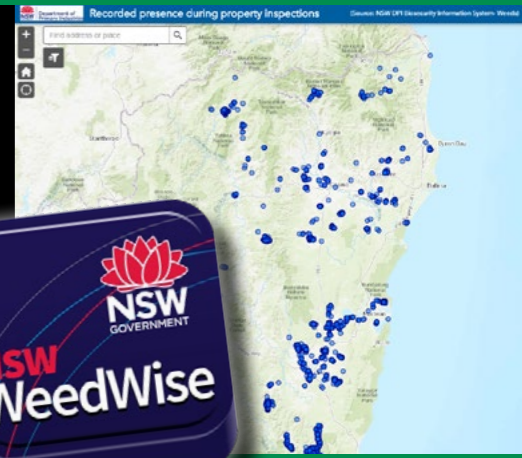
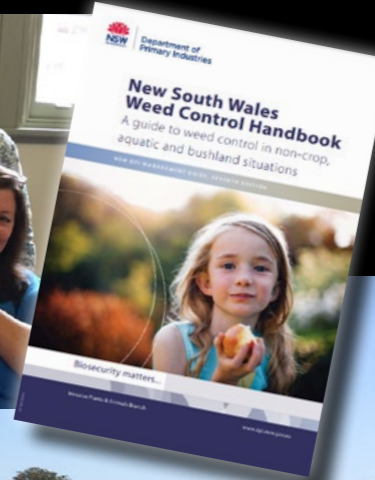
The No Space for Weeeeds campaign raised awareness of the benefits of preventing and managing weeds.



The Program provided training to landholders and community groups.



Training in positive messaging and behaviour change techniques resulted in increased community action and involvement.



Each year over 1 million viewers accessed weeds information through the NSW WeedWise smartphone and web apps.



The 19th and 20th NSW Weeds Conferences allowed the state's unique weeds workforce to share knowledge and build capacity.



INVESTMENT DETAIL

2015-2020 allocations and contributions by year:

Year of round	Program \$	Partner \$
2015/16	10,744,999	23,394,196
2016/17	9,984,000	21,925,019
2017/18	11,733,600	21,356,177
2018/19	12,500,000	19,254,877
2019/20	12,662,500	22,322,576
Total	57,625,099	108,252,845

2015-2020 allocations to state and regional streams by year:

Year of round	Program \$ State stream	Program \$ Regional stream	Total
2015/16	1,455,880	9,289,119	10,744,999
2016/17	1,473,643	8,510,357	9,984,000
2017/18	1,498,800	10,234,800	11,733,600
2018/19	1,618,200	10,881,800	12,500,000
2019/20	1,616,000	11,046,500	12,662,500
Total	7,662,523	49,962,576	57,625,099

2015-2020 allocations and contributions by sub-program:

SUB-PROGRAM	PROGRAM \$	PARTNER \$
Central Tablelands	4,282,129	6,621,879
Central West	4,106,388	5,071,027
Greater Sydney	5,587,261 *	8,362,714
Hunter	5,681,972	25,383,095
Murray	2,667,049	5,653,006
North Coast	7,164,551	22,452,516
Northern Tablelands	3,633,637	3,417,219
North West	3,147,097	4,191,276
Riverina	4,283,189	7,042,543
South East	8,029,768	7,519,563
Western	1,579,535	1,319,112
Crown Lands Public Reserves	201,580	1,409,480
Capacity Building and Engagement	1,755,720	1,677,095
State Coordination & Management	1,475,760 **	528,960
New Weed Incursions	499,739	505,340
Parthenium Weed Secure Borders	350,000	105,454
State Aquatic Weed Coordination	737,400	1,232,500
Biological Control of Weeds	539,000	786,299
Eradicating Hawkweed	1,021,324	4,112,129
Tropical Soda Apple	402,000	440,000
Weed Risk Assessment	150,000	76,768
Biosecurity Intelligence (Weeds)	330,000	344,870
TOTAL	57,625,099	108,252,845

* Total includes \$500,000 towards the Hawkesbury River Aquatic Weeds sub-program

** \$5,250,000 of the funds allocated to the individual regional sub-programs supported regional coordination in the years 2015-2020



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