

HOW DO I START INVADER ALIEN PLANT CONTROL ?

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The trite saying, “if you fail to plan, you are planning to fail” is very applicable to IAP control. All land develops its own natural vegetation, e.g. forest, bushveld, grassland, and each type can be invaded by undesirable alien plants.

ARE YOU AWARE THAT:

- You are probably seeing the alien plants you want to control **at their worst**. It takes years for large trees or dense patches to develop and any clearing you do WILL result in some improvement. **Do not give up before you start!**
 - There are two parts to the problem, first, the **perennial plants** which you can see, and secondly, the **seeds in the soil**, which are often more difficult to “kill”.
 - To kill a plant and to prevent it becoming re-established it is necessary:
 - a) To kill the standing plants, called **initial work**.
 - b) To establish **an alternative plant cover**, called **rehabilitation**.
 - c) To kill any regrowth and seedlings that appear, called **follow-up**.
 - d) To **look after** the new plant cover, natural or planted, so that alien plants do not become established again.
 - e) To kill seedlings of any aliens that appear in later years, called **maintenance work**.
 - Control work has to **continue for a few years**. This means **short periods of activity**, perhaps twice a year; **not continuous work**. This is because it is impossible to predict how many seedlings will appear each year.
 - **The order in which you tackle different species or patches of alien plants is** entirely up to you. The land could be valuable and you are losing income from it, or the aliens are causing erosion or you realise they will cause a problem in the future. What ever you decide, **once work starts in an area you must follow up every year** until no seedlings found in late summer.
- **You can use any action that harms the plants.**
Methods of control can be either:
mechanical (hand pulling, cutting, ring/strip barking),
chemical (applying herbicides),
indirect (burning, browsing) or
biological (the release of natural enemies).

Try to use a combination of methods.

Killing plants without cutting down causes **the least disturbance** to the soil and is the ideal. Most methods of control are best applied **in the rain/growing season /summer**. Herbicides are not as effective in winter but then you can try ring barking, maybe hand pulling & burning.

Maintenance work should be done in late summer when any seedlings can be seen amongst the other plants.

- **You should encourage an alternative plant cover at once**, i.e. combine control work with rehabilitation.

WHERE TO START?

1. RECORD ALIEN PLANTS PRESENT & LAND MANAGEMENT

Identify the alien plants and their type of growth (e.g. shrub, tree or sapling).

Mark on an aerial photograph/map where **they occur and estimate the area** of each type of growth, square metres.

Are there any management practices used which damage the aliens? e.g. **browsing** by goats will reduce height. **Burning/mowing** grassland will severely damage tree seedlings; **Demand for firewood** may encourage workers to fell trees; give them herbicide for stumps.

2. LIST THE RESOURCES YOU HAVE

How much can you afford for labour, tools, materials (herbicides, diesel), equipment (protective clothing) and transport? Should be available for **at least three years**.

Who will plan/supervise the work, are they trained (attend the PPRI Short Course at Cedara?), what time of year is the labour available, will casual labour have to be hired?

3. SELECT THE TREATMENTS TO USE & WHERE TO START

a) Obtain information from neighbours, agro-chemical companies, Ezemvelo KZN etc.

b) **Start work at highest point** of a valley or where there are small patches or where only a few alien plants occur.

Prevent further spread from large patches by killing the plants around the edge.

4. TRAIN FIELD WORKERS

Start preparations well in advance of starting work, September? Obtain equipment and train workers in the methods to be used. Then try to keep same workers, and target one species at a time. A "beginners" weed is Bugweed. Carry out training in the first area to be cleared or where the plants are the same size as plants to be killed.

5. INSPECT WORK & KEEP RECORDS

Unskilled workers must be closely supervised. Few can understand the reasons and significance of eradicating IAPs. Try to include ways of motivation. e.g. *Lantana* is poisonous to cattle.

Record progress in some way, **on aerial photograph/ map**; show dates when landmarks reached.

Take fixed-point photographs before work starts and a year later.

Always inspect sites before work starts so the most suitable method for plants there is used.

Keep simple records of daily operations, e.g. site, number of labour units and amount of herbicide used. Will be useful because **each site will require work**, once or twice a year, for a number of years. Your progress can be measured by **the reduced amount of work** required each time you return to a site.

6. NEXT YEAR & EACH FOLLOWING YEAR

Repeat the same steps before work starts each spring.

FOLLOW UP in the areas treated last year **must be** completed before Christmas.

Start **new INITIAL WORK** according to plan.

AN EXAMPLE OF DIFFERENT STAGES OF CONTROL IN DIFFERENT AREAS

Area Priority	River valley 1	House hill 2	Dip paddock 3	Far camp 4	Total Hectares
Year 1	5 ha initial	-		-	5 ha
2	5 ha follow-up 1	4 ha initial	-	-	9 ha
3	5 ha follow-up 2	4 ha follow-up 1	6 ha initial	-	15 ha
4	5 ha maintenance	4 ha follow-up 2	6 ha follow-up 1	3 ha initial	18 ha
5		4 ha maint'ance	6 ha follow-up 2	3 ha follow-up 1	13 ha
6	-	.	6 ha maint'ance	3 ha follow-up 2	9 ha
7	-	-		3 ha maint'ance	3 ha