

Report:

Suurvy work done for 2020:



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1. Background:

Suurvy or Sour fig is a naturally occurring succulent plant that occurs all over the estate. It is seen as a problematic plant as it has been taking over the grazing areas (old farmlands) on the estate. This is problematic as it reduces the area available for grazing for the Estate's game species. Besides the above mentioned concern it is actually a good plant as it stabilizes soil, is drought resistant and the fruit is a food source for many animals. It provides shelter for insects and smaller animals and is fire resistant.

Originally the budget for 2020 allowed for R20 000 for the removal of suurvy, however at the AGM held in December 2019 it was decided to add R100 000 to the budget to make a big effort to resolve this 'problem'. This allowed a total budget of R120 000. And after thorough research, a detailed plan was formulated and will be carried out in the years to come.

2. Budget split:

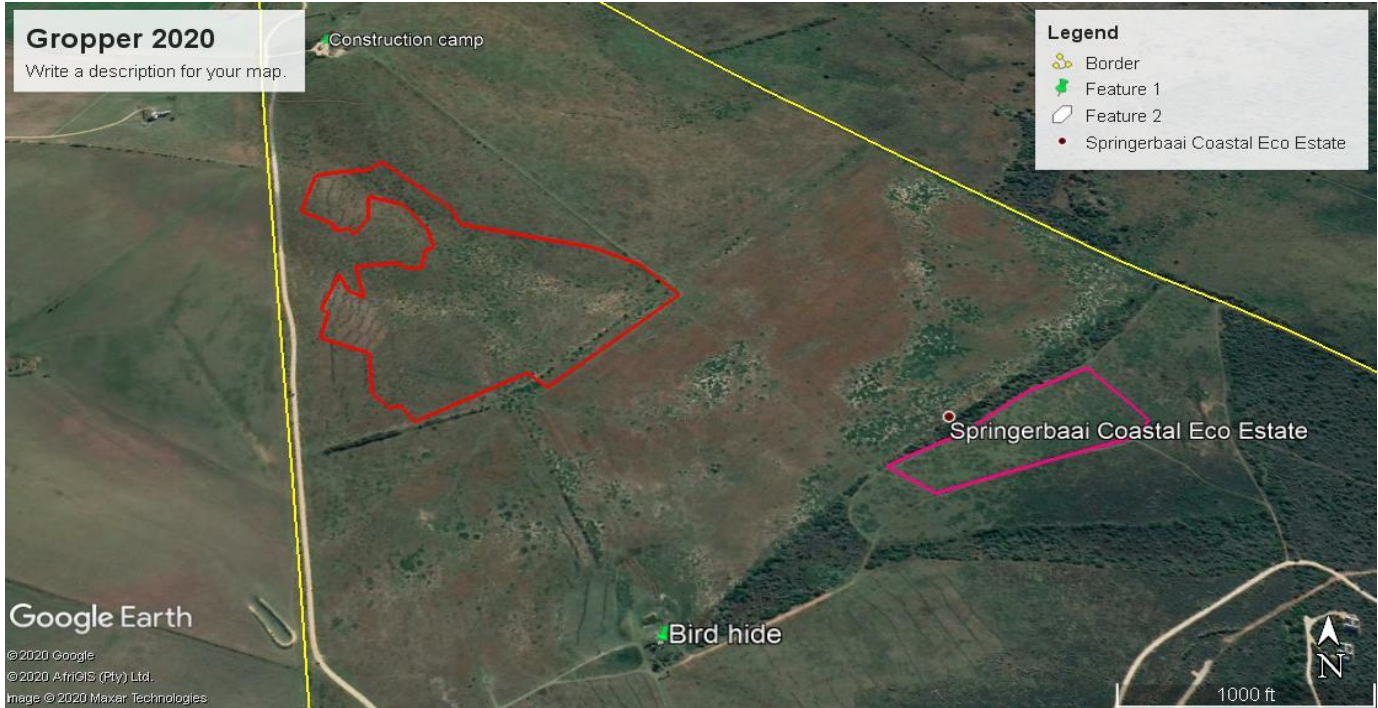
- Mechanical removal (Gropper & Tractor) = **R65 000**
- Hand Removal & follow up (Casuals) = **R30 000**
- Exclusion plots = **R5 000**
- Shrubs, bushes & seeds = **R15 000**
- Bird hide rehabilitation = **R5 000**
- Total = **R120 000**

3. Mechanical removal:

This involves the use of a tractor with a gropping implement (basically a big rake). Previously this proved to be most effective to initially clear an area with dense suurvy. The gropper is used to uproot large mats of suurvy and is most effective in areas with large amounts of the suurvy mats. In 2020 a total area of 20,71 hectares was effectively "degropped" in this manner. About 70 % of the 20,71 hectares was covered in suurvy mats. The "degropped" suurvy was then placed into rows for drying

and eventually burning to remove dry matter. Later a digger loader was used to mass the suurv rows into heaps to make burning a lot easier. In September, a test burn of roughly 20 heaps was conducted, and proved to greatly reduce the amount of dry matter. The only negative is that these heaps tend to smoulder for a few days but were regularly inspected to ensure no fire spread.

Below: Total area covered by the tractor & gropper.



Rows of removed suurv



Monitoring the burn



The digger loader pushing suurvy rows into heaps

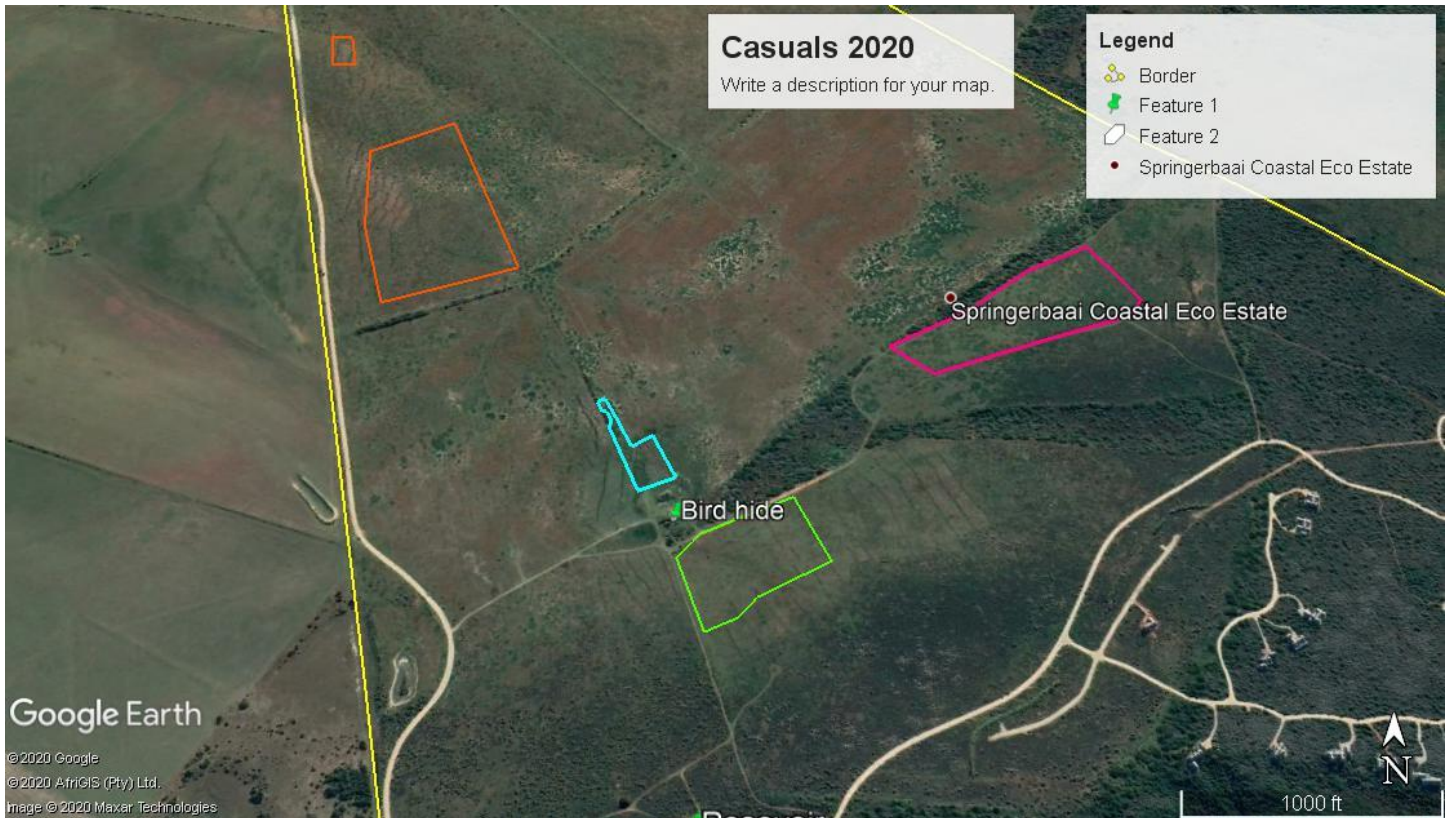
4. Hand removal & follow ups:

This is by far the most important step of the whole suurvy removal program. If we only mechanically remove the suurvy, small pieces would still be left in the ground. These small pieces often still have roots or could form a new root system. The disturbed soil is ideal for the suurvy to re-establish even faster. The role of the casual workers is to go in after the gropper and remove these pieces to give the grasses a better chance to grow before the suurvy.

So far in 2020 a total of 10 hectares has been followed up by casuals. They have also covered an area of 2,41 hectares in an area previously gropped in 2018. It is important that these follow-ups continue as suurvy seedlings will come up and removal of them will help solve the problem in the long run. The casuals also cleared a dense suurvy plot of 0,5 hectares to see how effective hand removal is.

Image on the next page:

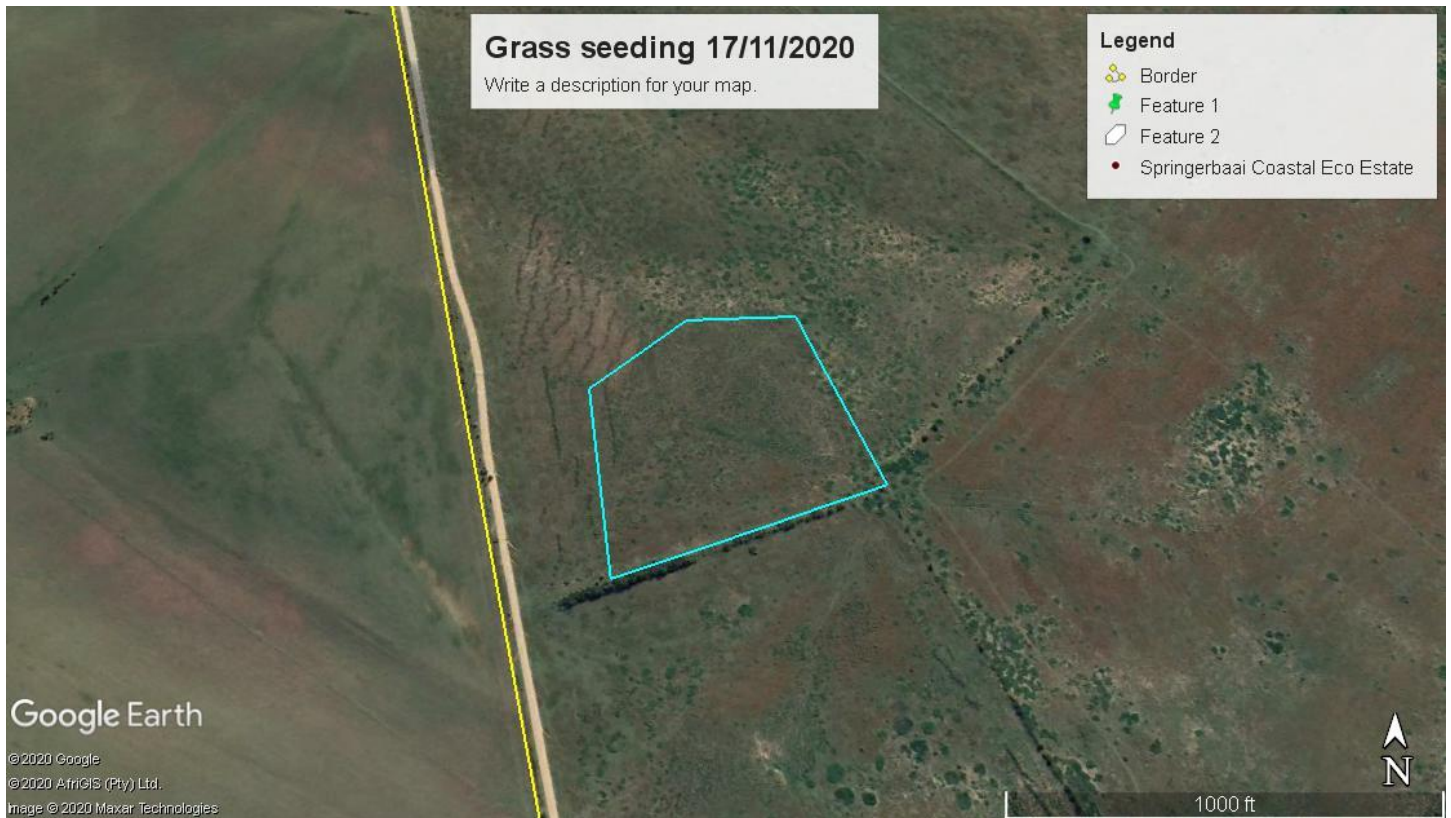
- **Light blue:** 0,5-hectare hand cleared plot
- **Green:** 2018 gropped area = 2,41 hectares follow up
- **Orange:** 2020 follow up area = 6 hectares
- **Purple:** 2020 follow up area = 4 hectares



5. Other:

This section covers other work done regarding suurv.

- A. A total of 70kgs of grass seed was ordered and received in the second week of November. The purpose being to sow grass seed on bare patches left behind after suurv removal. With good rain this will allow the grass seed to over run the suurv and bind the soil thus preventing erosion. The various grasses ordered were: Couch grass; Smuts Finger grass; Blue Buffalo grass and Wool grass. On 16 November 2020, 4 hectares of the gropped area was seeded with a mixture of these 4 grasses. A total of 58mm fell on the 17th of November, hopefully this will kick start the germination of the grass seeds.
- B. 10 Sweet thorn trees were purchased & planted at the bird hide. The reason being that along with other bushes & shrubs planted, suurv will be shaded out, (which stifles growth) as well as serving the dual purpose of beautifying the area around the bird hide.
- C. The exclusion sites have not been set up yet, this will most likely take place in early 2021. The idea is to also test the 'shading out' of suurv and create more denser bush areas for animals to use as shelter.



Above: the area where grass seeds were sown 17/11/2020.

6. Conclusion:

The year 2020 has most certainly been a challenging one, but despite Covid-19 and its negative impact we have managed to keep to our plans and have executed them to the best of our ability.

I have said it before and repeat that despite us wanting to remove suurvy, it is still a useful and good plant to have in the right areas of the estate. For example we have left suurvy along the West boundary fence as a firebreak and as a substitute for bush to allow clear view of game grazing along the road. 2021 will be about catching up with our follow up work, sowing more grass seeds and to continue following the plan that we have put in place.

“The Earth is a fine place and worth fighting for.”

- Ernest Hemingway