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*Amanda Spooner*

Broadcasting Wildflower Seed

**HOW TO GROW AUSTRALIAN PLANTS  
FROM  
BROADCAST SEEDS**

by

Joanna Seabrook



**"THE GREAT BREAKTHROUGH"**

**Occasional Publication No.1  
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Price 50c  
**W.A. Wildflower Society : Eastern Hills Branch**



**List of plant species which have already been tried  
and  
proved responsive to broadcasting.**

<i>Acacia celestrifolia</i>	<i>Helipterum roseum</i>
<i>Acaciadrummondii</i>	<i>Hovea pungens</i>
<i>Acacia dentifera</i>	<i>Hovea trisperma</i>
<i>Acacia extensa</i>	<i>Hovea chorizemifolia</i>
<i>Acacia pulchella</i>	<i>Isopogon divergens</i>
<i>Acacia saligna</i>	<i>Isopogon dubius</i>
<i>Beaufortia purpurea</i>	<i>Isopogon sphaerocephalus</i>
<i>Bossieae pulchella</i>	<i>Kennedyia coccinea</i>
<i>Billardiera drummondiana</i>	<i>Kennedyia prostrata</i>
	<i>Labichea lanceolata</i>
<i>Billardiera caerulea-punctata</i>	<i>Labichea punctata</i>
<i>Casuarina humilis</i>	<i>Melaleuca scabra</i>
<i>Callistemon phoeniceus</i>	<i>Melaleuca violacea</i>
<i>Calothamnus quadrifidus</i>	<i>Petrophile biloba</i>
<i>Calothamnus rupestris</i>	<i>Petrophile heterophylla</i>
<i>Chorizema dicksonii</i>	<i>Petrophile serruriae</i>
<i>Chorizemallicifolium</i>	<i>Sollya heterophylla</i>
<i>Gastrolobium villosum</i>	<i>Stylidium affine</i>
<i>Hakea petiolaris</i>	<i>Trymalium floribunda</i>
<i>Helipterum cotula</i>	<i>Trymalium ledifolium</i>
<i>Helipterum manglesti</i>	<i>Thysanotis sp.</i>

**"THE GREAT BREAKTHROUGH"**

It has been found that if seed of native plants is simply cast on the ground, it will germinate and grow.

It is a momentous discovery which has been made independently by several different agencies including ourselves.

It opens the way to revegetation in a very real way and to the possibility of rescuing some of the degraded land of our country.

**Growing wildflowers from broadcast seed**

is easy,

provided

**you have a PLAN of what you want to achieve,**

**you have the SEED,**

**you have some SUITABLE GROUND, and**

**you can dispose of the WEEDS.**

### **THE PLAN**

**Do you want to grow plants for**

- ....a garden?**
- ....cut flowers?**
- ....producing seeds?**
- ....revegetation?**

There may be a number of other reasons such as growing rushes and Melaleucas around a dam or providing nectar and pollen producing plants for bird populations or developing a thick shelter belt as a barrier for strong winds and dust.

#### **Growing plants for ....a garden**

Your species need to be carefully selected not only for personal preferences, but also taking into account other factors such as height, width, foliage etc. Your garden should be designed beforehand—paths, walls, nooks, seats, outlooks, barbecue etc. Seeds should be scattered either randomly or in patches of particular plants.

#### **Growing plants for ...cut flowers**

Plants should be selected which will be the most profitable for blooms or foliage. Species of plants should be suitable to the particular soil type and the seeds should be sown in rows for ease of harvesting.

### **Growing plants for ...producing seeds**

The species of plants to be seeded should be chosen according to the use envisaged—i.e. for sale or for revegetation. Consideration needs to be given to the likely success of germination, ease of harvesting and type of soils, both for plant orchard and in the use of the seed. The plants should be sown in rows of species with room to manoeuvre between them.

#### **Growing plants for ....revegetation**

If possible, seed should be obtained of the plant species which originally grew on the site to be revegetated. A random effect is desirable and so prepared seed should be mixed and broadcast over the whole area.

There are many reasons why it is preferable to use local plant species :

- They are well adapted to local soils and climate.

- The form of species remains true.

- They retain the local character of the area.

- They provide habitats for local animals and birds.

- It would help preserve plants of local districts.

- Some areas needing rehabilitation have undergone change from their original condition because of salinisation, erosion, change of microclimate etc. In such cases it is often impossible to grow the original plants and so it is advisable to use those plants which have proved to be most tolerant of the conditions now prevailing.

### OBTAINING SEED

The planning is done so you know what you would like to achieve and what plants you want to grow.

There are two alternatives:

**either**

buy the seed

**or**

collect the seed yourself, which is much more fun, and whilst you are doing it you will pick up information about the plants you intend to grow.

If you are going to collect your own seed, a seed collecting licence will have to be obtained from CALM.

There are a number of sources of information about seed collecting, storage and pre-treatment.

Two in particular are recommended:

**CALM Information Sheet No 5-87**

and our publication

**"Seeds of the Future"**

Quantities of seed needed for a given purpose are difficult to judge as conditions for germination are different in each season and every batch of seed will be different as to viability, both within species and between species, so lots of common sense and good judgement are needed. However, it should be remembered to use more seed than you require plants to allow for non-viable seed and natural attrition of young plants.

### GROUND PREPARATION

A great deal will depend on the soil type and condition of the ground in the site chosen. In most cases very little ground preparation should be necessary.

**The paramount need is to be sure that the area is free from weeds as native plants are difficult to establish in a weedy situation.**

If the ground is to be cultivated it should be done before weed treatment is undertaken, as any form of soil disturbance will expose new weed seed. Sometimes it may be found necessary to kill the weeds over a period of twelve months preceding seed sowing. Both winter and summer weeds should be dealt with and then again kill the first germination of weed seed in the autumn of sowing. Some people prefer to do 'scalping', which means running a bulldozer blade over the area and removing the top 75mm of soil which contains most of the weed seed. If this is done too early there is a danger of seed blowing in from adjacent weeds so 'scalping' should only be done immediately prior to seeding.

#### Keep in mind the old adage

**"One years seeding, seven years weeding"**

Every effort should be made to ensure

that weeds do not go to seed on your patch.



If the site is on a slope where it will be subject to water flow a drain should be provided to direct the water to where it will not wash out the young plants. Conversely, if the area is very dry perhaps some water harvesting techniques, such as catchment banks, could be undertaken.

If the site is sandy and subject to blowing perhaps a windbreak should be placed or grown to the windward side before seeding takes place. Plants used to form a windbreak could also have the values needed for orchard plants. Any strong, bushy plants would be useful in this capacity. Bottlebrushes are a good example or, in the wheatbelt, *Casuarina campensis*. Another solution is that seeding could be carried out amongst a light brush cover, or a light cover crop such as cereal rye would help to stabilise the soil, sheltering rather than impeding the growth of young plants.

### **BROADCASTING**

Broadcasting is sometimes referred to as **direct seeding**.

Whatever the method of broadcasting used, the seed will need to be mixed with a medium to facilitate an even distribution.

The most satisfactory medium used so far has been

**an equal mixture of fine dry sand and sawdust.**

Bear in mind that some of the seed e.g. melaleuca and bottlebrush is very fine and will not throw very far. If the sawdust is slightly damp before mixing the fine seed will cling to it.

Other mediums could be vermiculite or superphosphate. Even chickmash has been used although it is rather light. Superphosphate is useful in some sites such as gravel pits where there is a lack of nutrients, but if used in an area which may become subject to weeds it will act as a stimulant to weeds.

### **Broadcasting seeds for ....a garden**

If it is desired to keep species separate, mix each species of seed with a little of the medium (the quantity of medium used is dependent on the size of the patch) and spread gently and carefully over the prepared area. If a mixture of species is required then the seed can be mixed together before combining with the medium and thus achieve a random effect. Do not forget that wattle and pea seeds should have been pre-treated (see CALM Information Sheet N° 5-87).

### **Broadcasting seeds for ...cut flowers**

Except for the choice of plants in these two sections, the treatment needed is very similar and both will need to be planted in the form of a plant orchard. Rows will be needed to be laid out, pegged and labelled. Seeds of each species should be mixed with the medium and spread gently along the rows of prepared ground. If the orchard is not very large this will be best done by hand. It is a good idea to give each row some width rather than aiming for only one plant width. The rows should be far enough apart to facilitate the harvesting of both flowers and seeds and also to allow room to deal with weeds.

### **Broadcasting seeds for ....revegetation**

This usually concerns a much larger area such as a gravel pit, a minesite, an area threatened with salinisation or a farm shelter belt. Other reasons for revegetation could be for the beautification of the landscape or to provide a habitat for birds and other animals.

The various agencies involved in revegetation have adopted a number of different techniques. Mundaring Shire has had great success in gravel pits by broadcasting the seeds with a superspreader, using superphosphate as the medium. Alcoa of Australia has its seeding done by hand broadcasting whilst many farmers use a farm combine. A number of seeding machines are now also on the market. There is a choice of methods; circumstances will dictate what method is best to use. It may even be something quite different.

The varieties of seeds to be used should be assembled and mixed together and then mixed with whatever medium has been chosen. If the area to be revegetated is extensive, a large amount of the medium will need to be used to distribute the seed evenly over the whole area.

### **GENERAL INFORMATION**

In Western Australia, **sow after the first real winter rains** in a weed free situation. If in a situation where weeds may be expected, the first germination should be allowed to sprout and should be eradicated prior to seeding.

**Do not broadcast too early** as the seed may be carried off by ants or birds. It is noticeable that ants appear to become sluggish and to cease collecting their winter stores as the weather becomes cooler and wetter.

**Do not cover the seed** as even slightly too much soil over the seed hinders germination. After all, in nature seed just drops on the ground.

**Do not expect immediate results.** Germination often takes many weeks so do not give up hope if you do not see any plants until spring. When they do appear they will be hardier and stronger than potted stock.

**Many varieties of seed have a dormancy factor,** which is more likely to be overcome in the natural and varied conditions experienced on open ground than in conventional propagation techniques

**Keep a list of the seed sown,** its date of seeding, methods used, date of germination and any other interesting factors. Such records can be invaluable both to yourself and any other interested persons.

For further assistance or clarification  
contact Mrs. J. Seabrook,  
telephone 299 6816.



## Broadcasting Wildflower Seed

## Notes

This image shows a single sheet of bright yellow paper with horizontal black ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slightly textured appearance and some minor discoloration or foxing, particularly towards the edges. The overall tone is a vibrant yellow.