

SEED BALLS

IN NEW ZEALAND

The use of seed balls as a method of recreating native habitat in New Zealand is both innovative and exciting.

Here in Southland, where trials with the seeds of indigenous plants are under way, there is much interest from environmental organisations and individuals wishing to accelerate the process of habitat creation.

The method is being used in other countries as an effective tool for re vegetation of degraded landscapes, particularly in semi arid areas. Trials there have shown that the process is simple and effective and can involve a whole range of people, from the very young to the elderly.



A seed ball on the ground, just prior to sprouting.



MAKING SEED BALLS

The process is similar to making chocolate truffles!
You will need seeds, compost, clay and water.

SEEDS

Collect seeds from as close as possible to the proposed restoration site. Clean and store each type of seed according to its needs. Some seeds, such as *manuka*, need to be dried and stored in a dark place. *Pittosporum* seeds, on the other hand, have to be separated from their sticky coating before use. Wash and rub the seedpods in detergent to separate the seeds and then rinse them well. Poroporo need to be treated like tomatoes, that is, set out to ripen until squishy, mashed in a container of water, left to stand and ferment slightly, then pulped by hand to separate seed from pulp. There are many good manuals describing the pre treatment of New Zealand seeds. Common sense will ensure that you succeed.

Once you have a good supply of seed, you can mix them together in combinations such as you would find naturally.

COMPOST

Compost collected from beneath the sorts of trees you plan to grow serves two purposes. The sprouting seeds will use nutrients from the compost to grow, once they have exhausted their own reserves. At the same time, mycorrhiza which will be found as spores or fragments in the compost, will 'partner up' with the growing seed and begin its beneficial association with the plant. These fungi appear to be essential to the successful establishment of native plants. The compost needs to be sieved to remove stalks and leaves, then dried in a shaded place.

CLAY

The most suitable clay to use is red terracotta clay, collected from a site free of weed seed. Often, digging deep will ensure that no unwanted seeds become part of the mix! The clay needs to be dried and ground finely to ensure a lump free mixture. Two bricks can serve as an effective grinder. Other clays, the blues and whites are not suitable for this process, as they contain minerals, which interfere with the growth of the seedlings.

THE MIXING

Take one part seeds, add three parts compost and mix until the seeds are coated. Put in five parts of powdered clay and mix the whole lot together. Add a little water, until the mixture is like dough. Be careful not to use too much water. Pinch off a small amount of the mix, compress it between your fingers then roll it between the palms of your hands. The seed ball should be the size of a small marble and should feel 'sound'. As you roll



more and more seed balls, set them out to dry in a shaded place. They will be dry in a few days and can be dispersed from that time on.

SCATTERING

Seed balls don't get planted. They are simply scattered about the site you wish to re-vegetate. They can be thrown, rolled, fired from a slingshot or dropped from a helicopter! Children love to do this work and elderly people find it very rewarding to be able to take part in a project that doesn't require backbreaking digging!

The most suitable sites for 'seed balling' are those free from thick grasses. Exposed soil, beneath exotic trees, broom and gorse, in pine forests, amongst native nurse plants, such as manuka, on beach foreshores, amongst harakeke and so on.

There is no need to water the seed balls. They will absorb moisture from the ground, the dew and the rain and will sprout when conditions are right. Many seeds will grow from a single seed ball and the plant most suited to the micro-conditions of that site will prevail.



Seed balls are the size of marbles

Seed balls are easy to make, light to transport and simple to apply. They ensure a very high strike rate, protect seeds from birds and insects and can be spread in very difficult areas. They provide an opportunity for an enjoyable community activity and they don't cost anything!

If you would like to contact me with questions or news of seed ball projects you have initiated, e-mail me at;

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I would be very interested to hear from you.

I would like to thank the Royal Society of New Zealand for their vital assistance through their Teacher Fellowship Scheme, which has enabled me to pursue this yearlong study into Seed Balls as a Method of Habitat Creation.