

THE EARTHWORMER

EARTHWORM INTEREST GROUP OF SOUTHERN AFRICA

AUTUMN/WINTER 2008 ISSUE

RE-THINK : RE-USE : RE-CYCLE : RE-DUCE : RE-GENERATE

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Left: Listening to Bill talk on organic vegetable gardening.

Right: Bill during his demo outside showing how he prepares his beds, sows seeds and plants seedlings.



KEN'S KONCERNS

Ken Reid [kareid@iafrica.com]

First I would like to thank all those who have sent in contributions for this newsletter. I still believe as strongly as ever that it is vital to the members to read about what is happening in all the regions covered by EIGSA. Even though there have been some hints that some of the articles seem to be advertising, I feel that this should not deter people from sending us information about their own and their regions' activities. It is also very important that members be kept informed about where they can best access what they need. After all, if someone who is starting out in vermiculture can get the necessary ingredients and the necessary information from a nearby supplier that is going to encourage far more people to get involved in working with worms.

Then I would like to make special reference to Carmen's article. She highlights the vital importance of the earthworm to the planet. Most of us were taught that bees were absolutely essential to the well being of plants on earth. While not trying to minimize the important role played by bees, I would like to ask you all to consider this: What would bees (and other pollinators) have left to pollinate if there was no soil other than sterile lumps of rock and sand? And this is what would happen if there were no earthworms left to build up the productivity of all soil types. This is where every one of us can do something. We all need to try to get as many people to work effectively with worms as possible. Even those of our members who are not involved with the manufacture and sales of worms and wormeries can play an active role by persuading friends, relatives and neighbours to convert kitchen and garden waste by investing in some kind of wormery. I would appeal to you to try to canvass at least one person a month for the next year, not necessarily to EIGSA, but to becoming a keen wormer. Of course, if they also join EIGSA, that will be even better.

How things have changed since those early days that Carmen mentions! Nowadays we find that if you speak about earthworms, people literally demand that you show them some! If we do a presentation and we do not have worms to show, the whole thing falls flat.

We Gautengers are very grateful to the media for the support they give us every time we organize a workshop or seminar. Thanks to the free publicity by the media, the turn out at our workshops for the past 2 years has always been in the region of about 60 visitors. The one we held at Ditton's Farm on 19th April was no exception. We were privileged to have vegetable seed researcher and breeder, Bill Kerr as our guest speaker. His theme was growing winter veggies by the "No Till" method. His talk and demonstrations were so well received by all that we have invited him to do a repeat for those who were not able to attend and those who felt that they would like to learn more about this approach to food gardening. Bill brought some examples of the organic veggie he grows by this method and they were absolutely amazing.

WHAT EARTHWORMS MEAN TO ME

Carmen Nottingham [carmen@livingearth.co.za]

Ever since the Mount Nelson exposure on Carte Blanche last year, earthworms are suddenly IN! Many thanks to Mary Murphy and Roger Jacques - keep up the fantastic work and let's build up the industry now; "Waste management - powered by earthworms!"

I've been involved with Fertilis and earthworms for 18 years, and it's wonderful to have the kind of response we are getting now. In the early 90's - we used to display Fertilis and organic growing on stands at shows - I remember that we literally had to go running after people to almost beg them to listen to us about organics, healing the soil, earthworm castings as a fertilizer, etc.

The first time I was invited to give a talk on Fertilis, I happily filled a jar with my beautiful babies to show them off. What a mistake - the audience backed into the far corner - whether out of disgust or fear (perhaps both) - the result was - no more live earthworms at talks.

There seemed to be a slight change in attitude since the Millennium - I think the year 2000 suddenly mushroomed into people's minds to get us to start thinking about issues greater than just ourselves. We've taken a huge leap forward as a species - realising that we are not here to lord it over everything without consequence! Rather - we are a humble part of the creation and WE need to learn from NATURE. Hence Organics - and yippee! - earthworms hit the map!

When I met Ken and Allison in 2004, Ken suggested that we start an Earthworm Interest group. My initial thoughts were - at least there are three of us! I have been amazed at the growth of EIGSA - we have over a 1000 members by now.

What can I say about the gracious earthworm *Eisenia foetida*? It has certainly changed my life and has given me a practical purpose to implement my heart's desire - to help heal this planet of ours.

There is no other creature on Earth that does what the earthworm does - it is the only creature whose "output" (waste excretion) is TEN times more enriched than what goes into its mouth. Surely Charles Darwin after 50 years of scientific studies on the earthworm was correct in stating that "of all the creatures ever created on this planet - the earthworm is by far the most important". And do you know why? The earthworm CLOSES the cycle of living from death to life. It's job is to digest harmful pathogens, create an oxygen-rich environment, and cultivate beneficial micro-organisms that will convert organic waste matter back into LIFE! What an important mission and purpose!

I am honoured to be aligned with such a mighty task!

Dates of talks given:

26 February 2008: I was flown to Upington and we drove to Springbok (courtesy of the Government). I addressed a workshop of abattoir owners, and various people from the different departments (health, vet science, inspectors, etc). My presentation was on the use of earthworms to recycle abattoir waste. It was very well received. This follows on the work I am doing with the Gauteng Province and the pilots that are currently underway at the farm.

10, 11 & 12 March 2008: Travelled to Komatipoort to hold a workshop. An organic banana farm has an earthworm compost set -up, but they needed training on large-scale production. It was successful, and they are currently producing vermicompost for 26 hectares.

18 & 19 March 2008: Allison set up a table as part of a schools exhibit at the Delta Environmental Centre. It was wonderful to see how much of an interest the children have in the environment

2 April 2008: Reg and I gave a talk at the Bedfordview Ward Association meeting and on 3 April we addressed the Heckers Garden Club. Recycling, earthworms and doing our bit to help save the planet - both demo's and talks were well received.

12 April 2008: We gave a talk to a group of ladies who have a "culture club". Once again, earthworms were a real hit.

18, 19 & 20 April 2008: Gardenex was on and fertilis featured on Talborne Organics' stand (as we have done for the past 8 years or so). There were lots of enquiries from the visitors about earthworms and setting up their own bins.

NEWS FROM THE EASTERN CAPE

Les Kingma - Worms for Africa [lemarona@intekom.co.za]

On the "activities" front there is very little going on in this region at present.

However, two ladies contacted me from Port Elizabeth about obtaining worm bins and some worms to start up their own worm farms. They were inspired by the programme on Carte Blanche, not so long ago, showing the Mount

Nelson hotel project using worms to consume most of their domestic organic waste. I managed to supply them with sufficient worms as a start up population to get their worm bins going. They were able to obtain plastic containers locally that worked well as worm bins to house their worms. I had a number of people phoning, also as a result of the TV programme, to obtain worms and bins, however I was unable to supply worms locally and besides, there seemed to be resistance to the cost of commercial worm bins we could get from the other centres. The number of people that showed interest in starting up their own worm bins hardly justified the trouble to order and supply these worm farms or bins, not to mention the financial risk when one considers that most folk would use local plastic containers that essentially do the same thing.

(Refer to the article submitted by Stacey Rosochacki—Ed.)

I have kept the names of the people that did call to inquire and I plan to get back to them with the help of the two ladies from P.E. to assist me in arranging workshops and talks so as to create more awareness, educate and inspire folks to convert some of their domestic organic waste themselves using earthworms. I hope we can get things off the ground soon and get the cogs turning.

(This is wonderful news! Running workshops in Gauteng has been one of the best ways we have found to get new members and to get the public involved—Ed.)

I have also received some emails from Ronald "Jock" Thompson requesting some worms for a project down in the Western Cape. I was unable to help him with any worms due to a major setback with my private worm population. Somehow with the lack of attention and very hot weather in November 2007 the Red Ants invaded my worm beds and completely destroyed most of the adult worms leaving only a few juveniles. I did however start up a new worm bed with the surviving juveniles and should be back to normal in a couple of months.

(Very sorry to hear that you suffered such a loss to your stocks, Les. Again look at Stacey's article. She can probably help.—Ed.)

I wonder if it's not a good idea to get information from other regions who are involved in projects requiring worms and should they have insufficient worm stocks or in short supply that we are kept informed. The local worm populations could be increased proportionately to the anticipated demand and a short supply could be avoided. Just a thought!

(We are working on setting up a National Worm Breeder's Register, but just do not seem to be able to make much progress due to time constraints. Any volunteers?)

Well, that's all that's going on down here (as far as worming is concerned) at present.

WORMING OUR WAY THROUGH ORGANIC FARMING

Maryam Newman [newfrontiersbots@yahoo.com]

My husband and I manage an organic farm just outside Lobatse, Botswana. We were introduced to the mighty earthworm by Tim Jackson of BDOCA and Wensleydale Farms, who do our organic certification and buy most of our produce. We set up our vermicomposting operation around 7 months ago, using rumen content and manure obtained from our local abattoir. Organic farming revolves around soil. Where conventional farmers feed their crops using chemical fertilizers, organic farmers focus on enriching the soil so it is able to provide crops with the nutrients they require. Thus compost is an absolutely essential part of organic farming, and since worm castings is the best compost around, it made perfect sense to us to set up a vermicomposting operation on our farm. An added bonus is that the abattoir was having huge problems disposing of their manure and rumen content so we are actually providing a service to them, removing their waste and recycling it for the benefit of the earth!

THE NEWS FROM HERMANUS AREA IS QUITE PROMISING

Ronald Thomson [ronmar65@hotmail.com]

Wormeries using the used tyre concept are being seen more and more at morning markets and are being very well received. Hermanus has recently obtained a large number of worms and is now looking for large-scale contracts with Hotels, Municipalities etc. Country Life magazine holds regular seminars on organic farming in Stellenbosch and always has a speaker on vermiculture at the podium. The Mount Nelson Hotel has added its worm farm as part of its facilities and conducts 'guided tours' around it (I have heard that R95 gives each tourist a cup of tea!). Wormeries and worms have recently left the Cape for three destinations in Gauteng - is nobody supplying them up there? Just asking. Hardly a day goes by without some e-mail requests for worms and/or details of wormeries come in so the demand is growing exponentially. A mention of worms in a local paper has given, in one day, five calls for information.

We here in Hermanus, especially, are very positive about the future of vermiculture in our area.

(Thanks for your good news, Ronald. It is very encouraging that hotels and local authorities are beginning to sit up and take notice. Referring to your question about suppliers in Gauteng: Earthworm Buddies, based in Jo'burg, supply wormeries and run workshops up here. Due to the incredible demand for wormeries this country has been experiencing since last August, we cannot breed worms fast enough to sell them other than in our worm systems. This is why we refer people to other suppliers. Ed.)

WASTE NOT - WANT NOT

Morag Stiles

Recycling starts in the kitchen. Everyday we use ingredients in our meal preparations which produce "waste". This mostly consists of peels and seeds. But why throw that away? By designating a little spot in your garden for kitchen waste, you will accumulate fabulous compost in very little time.

We of the worming fraternity agree with Morag's sentiments, but we have a better solution—Worm bins!

Potato, carrot and banana peels break down fairly quickly. However when it comes to the seeds that we usually throw away, like tomato and pepper seeds, it does seem to be waste that we don't plant them. If you have space for a pot plant, or for a garden bed, then consider planting these seeds instead of discarding them. Tomatoes and peppers are maintenance free plants that simply require a little watering.

With spring comes delicious and mouth-watering fruit. Plant some of the seeds from your watermelon before throwing the skin and seeds into the compost. Don't throw away the top of your pineapple. Instead place it into a glass of water to root. These are free plants that cost you nothing at all and will eventually supply your family with free food.

Many of South Africans plant gardens for aesthetic enjoyment. But as the cost of living increases, and salaries stay more or less the same, it makes financial sense to plant at least one tree in your garden that will supplement the family diet. Nut trees grow quickly and easily. Consider planting at least one tree in your garden that produces fruit. There are many monoecious trees to choose from. This is when you do not require cross pollination between two trees. One single tree fulfills all pollination requirements. A macadamia nut tree is evergreen and a member of the protea family (Proteaceae). These trees fit in well with the South African climate. Banana trees are also evergreen and produce wonderful fruit. Pecan nut trees grow fast and provide nuts. Avocado trees are easy to grow from pip, evergreen, and produce large amounts of fruit. Consider supplementing your diet with fresh organically grown home produce. It is so easy to implement, and the sense of reward that one receives from gathering your own fruit cannot be matched.

When cleaning out the fridge, throw old fruits and vegetables into the compost rather than into the bin. Gardeners spend a lot of money annually on compost. However by creating your own compost bin, the earthworms will create

compost for you for free. This goodness then goes back into your own soil, to feed your plants and to hold water moisture, rather than into the bin.

Spring is planting time. There are many crops that are very easy to grow. Beans and peas grow quickly and only a few plants can provide enough beans for the whole summer. Tomatoes grow easily and provide fruit all through summer and into autumn. Eyes cut off from your potatoes and placed into a barrel or laundry basket provided with holes for drainage, grow quickly and will provide you with fresh home grown potatoes.

It is easy to supplement your costs by growing new foods from kitchen waste. Instead of throwing excess away, plant a few seeds in a sunny patch, and throw the rest of your waste into the compost. This way you are providing for your family and your garden at no extra cost to yourself. After eating an apple, peach, pear, mango or litchi, don't throw the pip away. Decide where you would like this tree to grow and plant your pip instead. It is a fun activity to go garden hunting to see how many of your pips have grown. If you have any free space in your garden, consider planting a tree that will produce food.

To make your own compost patch, simply choose an out of the way spot that has bare soil. Place two old tyres one on top of the other, and use this to throw kitchen waste into. At the end of summer, lift the tyres off the ground and use the compost to work into new flowerbeds or to fill pot plants.

If you like to prune your trees, use the cut off wood to provide mulch for your flowerbeds. Invest in a wood chipper, or simply break up the stems and branches as much as you can using garden clippers or an axe. Scatter these bits onto the soil of flower beds and in the vegetable patch. This prevents the soil from drying out during the heat of summer. This saves water, as your garden will require less watering because the mulch prevents rapid evaporation, and again cuts costs.

Do not waste what your garden and kitchen provide. Re-use and recycle it, to benefit your purse, your garden and your family.

Our thanks to Morag for these very practical hints. Ed.

MOTHER EARTH WORMS

Stacey Rosochacki [staceyk@mweb.co.za]

Our family moved to Knysna with love and a bump late 2006. We bought a delightful, but neglected pecan and macadamia nut farm almost eight years ago. We tried as best we could to manage our orchards from Cape Town, but once we started farming nuts in earnest, realised that we wanted "THE" best organic soil amendment for premium nuts. And thus, our interest, fascination and admiration of the humble compost worm started. So we, like others, ordered our first worms, and were blown away with the results we saw in our trees and garden.

Our commercial worming started in earnest in 2007, as our "corporate life savings" dwindled. We quickly saw that worm farming is a business of plenty - NOT necessarily financially (hard work is needed for it to work well!) - but rather a daily manifestation of hope, growth, and enrichment. We never stop marvelling at the "junk" put in, and the "jewels" gotten out from our worm beds. The old adage... "garbage into gold" holds very true.

In the last year or so, worming has been THE most blessed, fascinating and enriching experience as a family. We sell worms, wormeries, vermicast, vermiliquids, and "worm nibbles" - a balanced bed conditioner/food for worms, maybe rather known as "worm nip"?. We farm worms commercially as an income, but "worm" as a way of life. South Africa is admittedly new to the whole compost worm industry - but is forging many new "eco-preneurs", enthusiasts, and a ground-swell of environmental awareness. It is our hope that South Africa in the near future will have each home "worming" as a natural, affordable and logical extension of waste management and community care.

We have had to learn hard and fast, and having a husband with a production background, and myself (an ex teacher), we make a good team - even our kids are involved on a daily basis, with small "worm" jobs. This experience is

priceless in the following ways:

1. We know first-hand the amount we as humans waste and take for granted, and appreciate nature's bounty far more.
2. We are learning the value of creating an income that is based on sustainable living - reducing, re-using and recycling.
3. Working (or is it playing?) with worms heal your soul - period. Hours and hours are spent in the goodness of the soil, taking us back to a time as children when rain smelt good, worms were fun, and the earth was magical as the bearer of life.
4. Our children will grow up knowing the smell of soil, and the value of hard work.
5. Perhaps the biggest thing is seeing that when you nurture "Mother Earth", she blesses you right back.

We tell our kids, we might not be billionaires, but are indeed "willionaires". They finally have a dad who fetches them from school, can spend tons of time with them, are free on our farm, and as a family, are united and blessed in making the right choices for our family at this point in time.

So, while we can help with all sorts of advise, information, pricing, and support for YOUR worming ventures (and yes, we stock a LOT of worms) - we mostly look forward to those calls, where one makes a worm friend for life. To paraphrase one of my favourite quotes I live by... "If there are worms (help), there is life (hope), and where there is life (hope) - there is everything".

We are always at the Wild Oats Market (Sedgefield) on Saturdays, and ship worms and worm supplies all over South Africa. We are very generous with the amount of worms-per unit we sell, so give us a call, or shop around and see for yourself:) and get worming:)

You can contact us at (044) 388 4835 t/f, Stacey (sales) at 073 2669 202, Rudolf (technical) 082 578 4171, www.motherearthworms.com, info@motherearthworms.com, or Box 2316, Knysna, 6570. We look forward to hearing from you.

EXTRACTS FROM NO-TILL TALK ON 19-4-08

Bill Kerr

The reason for going the organic, no-till route for home grown vegetables goes way beyond economics. It has the greatest benefit for enhancing our health. Our food quality and eating lifestyle is reflected in the following statistics:-

	<u>1900</u>	<u>1980</u>
Coronary artery disease	Very rare	1 in 4 deaths
Diabetes	1: 100,000	1: 20
Cancer	3% of all deaths	28% of all deaths
Alzheimer's	Unknown	4 th leading cause of death

TYPE B MALNUTRITION

Depleted soils: As early as 1936, senate document 264 stated that USA farmland was becoming seriously depleted of minerals.

In 1993 WHO suggested that agricultural soils of the world were 95% depleted of essential nutrients.

In 2003 WHO released a report called "Nutrition and disease" and found a nutritional link to every disease studied and also identified type B malnutrition.

Our lifestyle today includes the following:-

Margarine, promoted as healthy whereas it is detrimental to our health. Butter is good for you other than in excess.

Acidosis is leading cause of cholesterol in arteries, not saturated fats. The body repairs arteries damages by acidity with cholesterol which it can manufacture. In years gone by we used lard for all our cooking and ate plenty of saturated fat and yet coronary artery disease was very rate.

Doctors receive 1 hour of nutritional training in a 7 year course. The world is dictated to by commercial interests. When a British scientist assumed that margarine would be much healthy than butter, the assumption was not based on any research. Since it has been proved to be the other way round, little is said about the matter.

Watch what your food is preserved with. The anti oxidants and preservatives not only kill organisms in food to preserve it but also the beneficial bacteria in our digestive tract. We can have up to 2 kg of bacteria in our digestive tract.

Grain fed beef. Beef from grass is far healthier and tastier.

Supermarket chickens are injected with 30% water or other additives. Buy free range chickens.

Avoid white bread and refined foods and cut out sugar. Use Zylotol in place of sugar if you need a sweetener. A can of Coke contains 11 teaspoons of sugar.

Get rid of your microwave. It destroys the goodness in food. Broccoli steamed retains 94% of vitamins and enzymes, micro waved broccoli is left with 11%. The biggest danger is substances formed which affect the blood and probably a lot more that we don't know about. Don't even warm or thaw food with it.

Try and purchase raw milk. Pasteurized milk has had much of the goodness destroyed and you can't absorb the Calcium in this milk. In large scale trials with calves, the pasteurized milk caused osteoporosis and malnutrition when fed pasteurized milk.

Organic matter restores health to the soil and no-till ensures a natural structure to develop with a good balance between soil organisms.

GOOD SOIL.

Soft and crumbly

No crusting

Faster water penetration

Greater water retention

High microbial count

Lower input costs

Healthy, high quality vegetables.

1ha. of good living soil contains:-

900 kg earthworms

2500 kg fungi

1500 kg bacteria

130 kg protozoa

900 kg algae and other organisms

Fields “tilled” by earthworms can absorb water at 4-10 times the rate of soils with none.

They move nutrients from the surface to deeper layers.

Nutrient rich organic substances line their tunnels. Roots access these tunnels.

They also consume soil with the organic matter making nutrients available from these minerals.

A good earthworm population can process 20-200 tones of topsoil per year.

They also secrete plant growth stimulants.

Soil which has passed through earthworms is far richer than the original soil.

Earthworms can only thrive when there is no tillage. Numbers can be reduced by 90% when there is deep and frequent tillage.

Organic soils are rich in all types of beneficial microorganisms.

Plants use 15-25% of their energy to feed soil microorganisms with sugars which they produce and exude from their roots. Such is the importance that plants place in soil micro organisms.

Microbes break down raw organic matter to produce humus and produce plant growth stimulators, antibiotics,

Nitrogen fixing and many other beneficial functions.

Soil with 4% organic matter will contain 80 tones of organic content in the top 15 cm which is over 4 tones of Nitrogen per ha.

Tillage stimulates the soil organisms to break down organic content and destroys structure and reduces the amount of fungi and microhiza, throwing the balance out. Tillage is a lot of extra work in order to damage the soil.

Feed your soil with manures/compost/mulch and let the soil organisms do the work that God placed them on the earth to do.

Organic, no-till soils will produce vegetables which will resist insects and diseases better and have a substantially better nutrient content and taste.

Much of the diversity of our soils’ mineral content has ended up in the sea which contains the full range of minerals. Foliar sprays of seaweed extracts and fish extracts will be hugely beneficial.

For safe pest control, a good biological product is called Bio-cure. Use 2ml per 1 litre water with a teaspoon of vinegar to reduce the pH and a few drops of dishwasher liquid as a wetting agent. Spray the plants thoroughly wet, soft on beneficial insects. Cost is about R250-00 per litre and available from Herman Peyper 011-974-7438. Share a litre with your friends.