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ROTARY CLUB OF NDOLA

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NEWS BULLETIN SEPTEMBER 2002
Year of the 50th Anniversary



The rotary Club of Ndola is celebrating its Golden Jubilee In the picture is the Kawama Cemetery Body Viewing Shelter renovated by the club this month as part of the 50th Anniversary celebrations.

Inspecting the completed works are (left to right)
PADG N.G. Patel (50th Anniversary Committee Chair)
PP Suresh Datta (Director Community Services)
Rtn. Dr. Avits Nsongo (Acting President)





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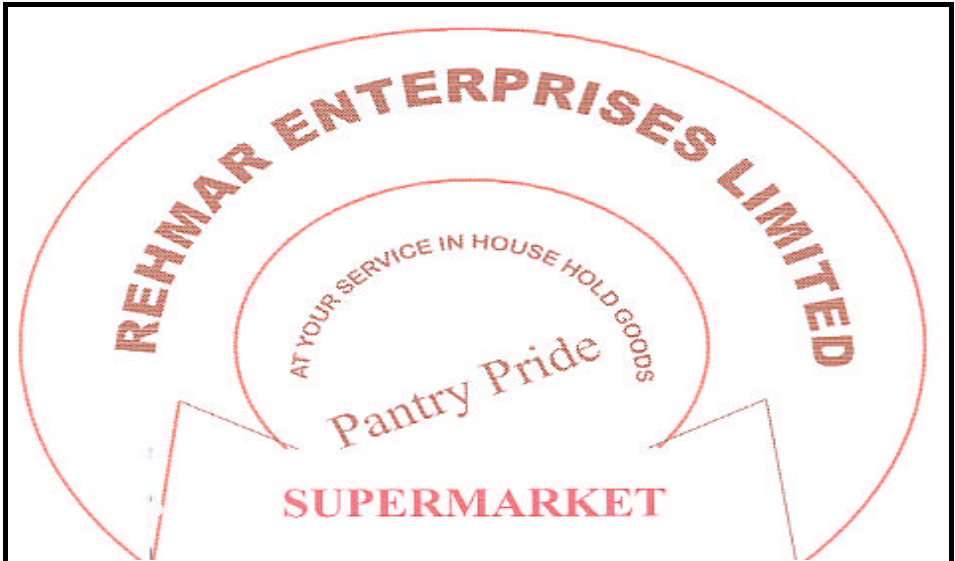
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THE SCIENCE OF LAW

I assured his Honour that law is a science wherein I had not much conversed, further that by employing advocates in vain, upon some injustices that had been done on me; however, I would give him all the satisfaction I was able.

I said there was a society of men among us, bred up from their youth in the art of proving by words multiplied for the purpose, that white is black, and that black is white, according as they are paid. To this society all the rest of the people are slaves. For example, if my neighbour hath a mind to my cow, he hires a lawyer to prove that he ought to have my cow from me. I must then hire another to defend my right, it being all rules of law that any man should be allowed to speak for himself.

Now in this case, I who am the true owner lie under two disadvantages. First my lawyer, being practiced almost from the cradle in defending falsehood, is quite out of his element when he would be an advocate for justice, which as an offence unnatural, he always attempts with great awkwardness, if not ill-will. The second disadvantage is, that my lawyer must proceed with great caution, or else he will be reprimanded by the Judges, and abhorred by his brethren, as one who would lessen the practice of the law.

And therefore I have but two methods to preserve my cow. The first is to gain over my adversary's lawyer with a double fee, who will then betray his client by insinuating that he hath justice on his side. The second way is to make my lawyer make my case appear as unjust as he can, by allowing my cow belong to my adversary; and this if it be skillfully done will certainly bespeak the favour of the Bench.

Now, your Honour is to know that these Judges are persons appointed to decide all controversies of property, as well as for the trial of criminals, and picked out from the most dexterous lawyers who are grown old or lazy, and having been biased all their lives against truth and equity, lie under such a necessity of favouring fraud, perjury, and oppression, that I have know several of them refuse a large bribe from the side where justice lay, rather than injure the *Faculty* by doing anything unbecoming their nature or their office.

It is a maxim among these lawyers, that whatever hath been done before, may legally be done again; and therefore they take special care to record all the decisions formerly done against common justice and the general reason of mankind. These under the name of *precedents*, they produce as authorities to justify the most iniquitous opinions; and the Judges never fail of directing accordingly.

In pleading, they studiously avoid entering into the merits of the cause; but are loud violent and tedious in dwelling upon all *circumstances* which are not to the purpose. For instance in the case already mentioned; they never desire to know what claim or title my adversary hath to my cow, but whether he said the cow was red or black, her horns long or short; whether the field I graze her in be round or square, whether she were milked at home or abroad, what diseases she is subject to, and the like; after which they consult precedents, adjourn the cause from time to time, and in ten, t, twenty, or thirty years come to an issue.

It is likewise to be observed that this society hath a peculiar cant and jargon of their own, that no other mortal can understand, and wherein all their laws are written, which they take care to multiply; whereby they have wholly confounded the very essence of truth and falsehood, of right and wrong; so that it will take thirty years to decide whether the field, left me by my ancestors for six generations, belong to me or to a stranger three hundred miles off.

By Rotarian Bernard Kang'ombe
Extracted from Jonathan Swift's Travels, Published in 1726

WHY JOIN ROTARY?

September
Membership 26
Attendance 72%

Membership and Extension

1. FRIENDSHIP
In an increasingly complex world Rotary provides one of the most basic human needs: friendship and fellowship. It is one of two reasons Rotary was formed in 1905.
2. BUSINESS DEVELOPMENT
The second reason why Rotary was formed. Everyone needs to network. Rotarians come from all walks of life and they help each other.
3. PERSONAL GROWTH AND DEVELOPMENT
Membership in Rotary continues one's growth and education in human relations and personal development.
4. LEADERSHIP DEVELOPMENT
Rotary is an organization of leaders and successful people. Serving in Rotary positions is like college education. Leadership: learning how to motivate, influence and lead leaders.
5. CONTINUING EDUCATION
Rotary weekly meetings provide an opportunity to listen to different speakers and a variety of timely topics.
6. CITIZENSHIP IN THE COMMUNITY
A Rotary club consists of the most active citizens of any community, and makes its members better citizens.
7. FUN
Rotary is fun. Each meeting is fun, a lot of fun. Club projects are fun. Service is fun.
8. PUBLIC SPEAKING SKILLS
Rotary develops confidence and skill in public communication and the opportunity to practice and perfect these skills.
9. CITIZENSHIP OF THE WORLD
Every Rotarian wears a pin that says "Rotary International", and is welcome to attend any club worldwide. This means instant friends in both the local and world community.
10. ASSISTANCE WHEN TRAVELLING
Rotary clubs are found everywhere, many a Rotarian has found assistance through Rotary.
11. ENTERTAINMENT
Rotary holds conferences, conventions, assemblies and institutes that provide entertainment, in addition to Rotary information, education and service.
12. THE DEVELOPMENT OF SOCIAL SKILLS
Every week at various events and functions, Rotary develops one's personality and social skills. Rotary is for people who like people.
13. FAMILY PROGRAMMES
Rotary provides one of the world's largest youth exchange programmes, high school and college clubs for future Rotarians, spouse involvement and the development of family values.
14. VOCATIONAL SKILLS
Every Rotarian is expected to take part in the growth of his or her own profession or vocation, serve on committees, and teach the youth about one's job or vocation. Rotary helps one to become a better professional.
15. DEVELOPMENT OF ETHICS
Rotarians practice the 4-Way Test that governs one's ethical standards.
16. CULTURAL AWARENESS
Rotarians are a cross section of the world's most prominent citizens from every background. They become aware of their cultures and learn to love and work with people everywhere, and in the process they become better citizens of their countries.
17. NICE PEOPLE
Rotarians above all are nice people, who follow the policy of "it is nice to be important but it is important to be nice".
18. THE ABSENCE OF AN "OFFICIAL CREED"
Rotary is an open society of men and women who simply believe in helping others. No secret hand shakes, no secret policy, no secret meetings or rituals no official creed.
19. THE OPPORTUNITY TO SERVE
This is the best reason for becoming a Rotarian: the chance to do something for somebody else. Rotary is a service club, mankind its business and service its product.




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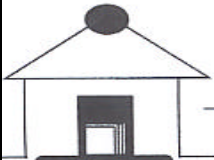
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"WHERE FRIENDLY PEOPLE MEET FOR A TREAT"

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MAKING MONEY WITH INSECTS

By Rt J Bahana (PhD)

My topic in this issue of the Newsletter is on insects. This is no wonder, because it is a subject that I can claim to understand very well. But I would like to acknowledge that most of us Rotary Club of Ndola are business people and that the rest would also love to be in business. I will, therefore, keep the language of science to a minimum. In this topic, I want to give you food for thought and bait you into an area that remains virgin-making money with insects.

I remember my first encounter with insects very well. As a child, I was baby sitting my young brother while my peasant parents were working the farm below on the slopes of the hills of my mountainous home district. My little brother grabbed a hairy caterpillar crawling by and before I realised what was going on, he put the hairy creature straight into his mouth. I quickly snapped at the disappearing caterpillar while involuntarily yelling my head off. The next thing was that the caterpillar came off onto my palm and rolling over my bare arm. What followed was a drama that I can never forget. The boy's moth swelled in seconds and his lips clumped shut. My arm, too, swelled up with huge pimples that sent shivers down my spine.

Hearing my cries and that of the baby, my parents came running up the hillside in a flush and were all over us, asking what had transpired. The rest is history. We all healed. But, I did not know at the time that a caterpillar was an insect capable of transforming itself into one of the most beautiful of creatures. Neither did I know that I would be spending the rest of my life unraveling the science of insects.

Another episode that has imprinted itself on my mind since my formative years was an occasion in which we had gone chasing grasshoppers. Green grasshoppers are a delicacy in the district where I originate. In the months of November and December, swarms of these beautiful (call them handsome if you may) and tasty insects descend on the hillsides overnight and their presence is detected by the rhythmic songs they transmit at sunrise. Then the villagers, without any self-interest, call with their loudest voices for the rest of the village to come and gather, what must surely be manna from heaven. What else can the villagers call this annual phenomenon? And so hordes of children and adults run to the site of invasion and collect these unsuspecting creatures in their millions into all sorts of containers. During the search for the grasshoppers, boulders of rock are often loosened and some come tumbling down the hillside with devastating consequences. It was during such an occasion that one of my cousins was hit with a speeding huge rock that tore off his ear and left a deformed face. The appetite for the grasshoppers that evening evaporated and I do not think any one of us ate the insects for a while until the next season. To date the site of grasshoppers brings that deformed face right before my eyes. Yet, this phantom has failed to diminish my appetite for the "flying prawns".

This brings me to the main body of the article; commercializing insects or making money with insects.

Insects, as a group constitute more than 75% of all animal species. There are nearly one million insect species already described, but we believe that this figure could easily be a half of the actual number. As individuals, insects are very numerous. A beehive can hold up to 50 000 or more. A Swarm of locusts can contain 50 000 million or more and weighing 100 000 tons, eating their own weight in a day. You may wish to compare yourself with this phenomenon.

Yet, despite these numbers and huge proportion of the animal world, they represent less than 1% of contribution to the world's commerce. Ironically, however, the control of insect pests and vectors of diseases is a multi-billion dollar industry. *Continued on page 7*

Insects can be found in virtually any habitat, from the tropical rain forests of the Congo and Amazon basins to the tundra and Antarctic regions as well as the desert world though, hardly in the sea. They are subterranean, living underground and in the air. Insects are some of the oldest creatures having appeared on earth more than 300 million years ago long before the dinosaurs. On plants, insects will feed on roots, bark, stem, leaves and flowers, fruits and seeds. That's the potential of insects. No other organism is as successful as they are. Let us examine some of the uses and potential of insects in commerce.

Insects as Food

Insects have been a delicacy and even a major food item to human beings since time immemorial. In ancient Greece and Rome, locusts and grasshoppers were made into flour and used for baking cakes and making bread. The American Indians roasted them and ate them as snacks. Locusts are still a highly valued food in many parts of West Africa while closer home, they are often found in markets in Lusaka during the swarming season. In fact, the International Red Locust Control Organisation uses the presence of this commodity in some markets in Malawi and Zambia as an indication of the level of locust infestation in the outbreak areas in these countries.

Grasshoppers are commonly eaten in many parts of Africa. In Uganda, there is even a level of sophistication in gathering these insects. The gatherers install powerful electric lights under which they place a sloping iron sheet. The sheet leads to a drum full of boiling water. The grasshoppers attracted to the lights will roll off into fumes of steam and to their death. A handful of grasshoppers will fetch one US dollar and a sack full of these insects will give a cool US\$ 1 000++. In spite of this handsome earning, grasshoppers remain manna from heaven rather than a cultivated harvest, as no one has been able to rear them in commercial quantities.

The Mopane worm, more commonly known in Zambia as "*Vinkubala*" is a pure delicacy for those who care to taste it. Market figures are lacking. In DRC, thousands of tons are collected every year and sold in markets. There is even a whisper going the circles in Ndola that if you want diamonds, all you need to do is travel to Mbuji Mayi with a truck load of "*vinkubala*" and you are straight away a millionaire.

Information available from central and southern Africa indicates the huge potential of the Mopane worm as a commercial product and sells in supermarkets in thousands of tons a year. Yet, the collection methods are primitive, traditional and, supplies are seasonal, thus inadequate to meet daily protein intake. Why hasn't industry taken up the challenge? Yet, there are good examples, which show that insects can be commercially produced so as to take care of the food needs of the population. For example, production in Kwango district in DRC averaged 300 tons/year over a period of 5 years. In South Africa, the Bureau of Standards estimates annual sales of the Mopane worm at about 1 600 tons of traditionally prepared and dried caterpillars. This does not include quantities that do not pass through normal channels of commerce or consumed domestically. In Botswana, a company called Albert's Mopane Worms, sells pre-packed caterpillars also in supermarkets. So why isn't the market developed in Zambia even at rudimentary levels? I leave that to you to speculate.

Termites are another delicacy. Large quantities are found in markets in Kenya and Uganda during the migration season. The harvest methods are, again poor and the yield is seasonal. Supermarket packaging remains poor and the shelf life is short.

These are numerous other examples of insects as food including Chaffer grubs, May Flies, Bees in larval stage, etc.

Why are insects widely used as food? Insects do not only provide alternative or additional food sources, they are also of high nutritional status.

Continued on page 10

Insects are sources of protein, unsaturated fatty acids, and fats, vitamins such as Riboflavin and Thiamine, and minerals such as Zinc and Iron. The nutritional value of widely eaten insects, such as locusts, the honey bee larvae and termites is high and compares favourably with those from traditional animal sources such as beef, chicken and milk. For example, grasshoppers have 70-77% protein while caterpillars have 64% protein with a calorific value of 457-kcal/100gm dry weight. Termites give up to 761-kcal/100 gm dry weight.

Insect Products-as food, medicine, etc

How many of you men call your wives "Honey"? Ever thought of its origin and why? Ever thought about it for a minute? It is the sweetest thing you can have!

Honey is a product of bees-an insect. Honey is not only of high nutritional value -3307 cal/kg-it is also used as medicine. There is so much written and known on honey I will leave it to its sweet perception. There is also the bees wax used in the shoe industry and pharmacy. Bees wax is known for anti venom therapy, has anti bacterial properties, boosts immune systems and is used as a drug against arthritis.

There are also many examples of insects that are used in medicine, folklore, etc. Again, let me leave the subject for another day.

Insects as Pollinators

Bees are the primary source of crop pollination with numerous crop plants especially fruit trees being productive because of bees and other pollinators. The bee industry in Europe and US is a very well developed one. In US alone, the value of crops dependent on bee pollination is worth a whopping 10 billion US dollars. In Zambia, I doubt that we even know that it is valuable.

If you can't keep bees, at least avoid killing them accidentally or otherwise. You will be making a contribution to pollination of crops whose yield no doubt you depend on one way or another.

Insects in aesthetic value and eco-tourism

I am sure you will agree that butterflies are some of the most beautiful creatures around us. In Malaysia, butterfly rearing and trapping is big business. A butterfly can fetch up to US\$ 5. Butterflies are sought after by museums, collectors and other enthusiasts. In Nairobi, Kenya, there is a butterfly park, which attracts tourists at a fee. There is no reason why pilot projects can not be started even here in Ndola. Here in Ndola, a School Insect Project has been initiated at Simba School. It is planned that this project can spread to other schools around the Copperbelt with the objective of putting some of these ideas into practice.

Insects in fish culture

In the Far East, and probably in a few African countries, common flies are used to increase fish yields from ponds. It's a simple technology. If you keep cattle or pigs or even horses, here is how it is done. The dung is collected into gunny bags. The bags are then placed at corners on a wire mesh over a fishpond. Flies then are attracted to the dung. They lay eggs. The eggs hatch into larva as they develop, they must pupate to become flies again. At this stage of development, part of their behaviour involves burrowing deeper into the dung. In so doing, many dig too deep and fall into the pond where they become the sweet course for the fish. The fish yield multiplies ten-fold and all you have done is turn the dung into a dollars. There are virtually thousands of ways insects can be commercialized. These are but a few practical examples that business can get interested in. There is no need for expert knowledge in most of these examples I have given. But should there be obstacles, we would be very happy to assist.

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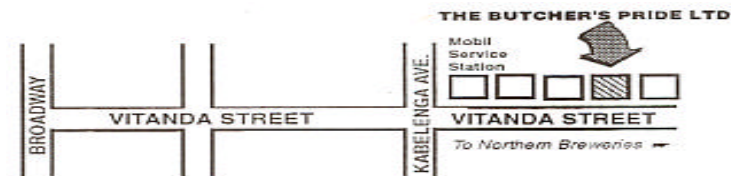
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