

A letter for the Bee's from Henry Horkan speaking in Holy Trinity Church for the annual Harvest Festival.

Nowadays, due to increased urbanisation and rural depopulation, harvest holds no particular importance for many, but it was very significant for the people of Israel, who saw in the harvest a need to thank God for his bountiful goodness. We congregate here tonight in this beautiful church, adorned with the fruits of the harvest, for that same purpose of thanking God. In fact we renew this act of thanksgiving each time we say the old version of the blessing before meals "Bless us O Lord and these thy gifts, which out of your bounty we are about to receive." But the bounty will not last unless we pull back from our cavalier mismanagement, mistreatment and at times destruction of the common home we share with all other forms of life. While it should be a humbling thought, that the earth would function perfectly well without humankind, it is imperative that we realise our dependence on its natural programmed functioning. Life is a miracle beyond our comprehension, and we should reverence it even where we have to struggle against it. Mother earth is sick, many forms of life are dying and human activity is the main culprit.

Today the world's consciousness is focusing on two interlinked problems that – if they remain unresolved – would threaten the continuation of human civilization as we know it: **global warming and the loss of biodiversity.** Although all life on the planet is interconnected and interdependent, I am here to highlight the plight of the honey bee, a pivotal species in food production, whose health is a litmus test of the health of the planet. This amazing, highly beneficial, social insect exists in a super organism referred to as a colony, which in summer comprises of some 50,000 female workers. Its advanced GPS system enables it to forage up to three miles and find its

way home. As far as I know the honey bee is the only species apart from humans, capable of communicating to her sisters in the hive, a source of food some miles away. It does this by means of a waggle dance on the honey comb which communicates the precise direction and distance of the food source. For such a small insect, the honeybee quite literally underpins the sustenance of life as we know it on planet earth.

Honey bees leave the hive to shop for food at nature's flower shops to feed themselves, rear their young and propagate its species. They shop for pollen and nectar, their protein and carbohydrate. They also gather propolis which is a sticky resin which they spread throughout the hive and which serves as an anti-bacterial and anti fungal substance. However, as the bees dance with the flowers as they have done for millenia, they pollinate or fertilise at least 80 percent of the food crops we rely on for sustenance. Their sheer numbers and flower fidelity guarantee maximum pollination and consequent bumper yields. It has been estimated that bees account for a third of what we humans eat. The demise of the honey is unthinkable because the alternative to bee pollination is hand pollination which is a reality in a part of China because of fungicide spraying. Therefore it is crucial for bees to not only survive, but also to thrive. Westport Beekeepers Association is doing its part in this regard by promoting the craft generally and especially in all of the primary schools. (The next time you take a teaspoonful of honey remember that a dozen bees have travelled 10,000 kilometers and spent their entire foraging lives of three weeks, seven days a week, to produce it).

But bees are under attack and increasingly threatened by a myriad of harmful and destructive influences, originating from human activity. The decline of

the honeybee is a worldwide phenomenon, even to the point of complete colony collapse in parts of the US (CCD). I will confine myself to a few of these destructive influences.

Traditional farming practices have moved towards an industrial model of increased productivity and economies of scale, whereby bees and other flower-visiting insects are experiencing food shortage, impoverished diet and even death. The most noticeable is the change from hay to silage in grassland regions where the single hay crop is replaced by up to three crops of silage. But look at a field of silage; from the bee's perspective it is but a green desert. In fact a similar comment applies to our close cut manicured lawns. Now recall natural meadowland as in the traditional hay field, awash with a variety of flowers like clover, dandelion, vetch, knapweed, meadowsweet etc which provided a continuous and varied source of nutrition for bees etc until it was cut in July. To compensate for this food loss, the UN in its recent report on bees has suggested monetary reward to farmers for the planting of bee friendly plants along field boundaries or in designated plots.

In fertile tillage regions crop monoculture prevails e.g. OSR, with a heavy reliance on artificial fertilisers and untold tons of toxic chemicals, which are killing the world's soils and in turn are killing off the insects which feed on the plants that grow in these soils. It is a highly destructive cycle of death that could one day make it virtually impossible to grow enough food to sustain life. A glaring example of monoculture can be found in the almond plantations of California. An area the size of Co Clare produces 90% of the world's almonds. Every spring 1.2 million hives are transported there from around the US, for three weeks, to pollinate this chemically treated crop. And the Americans wonder why their bees are dying.

But biodiversity and not monoculture is the natural order on our planet, where plant variety is literally the spice of life and where pests and fungi are more naturally controlled.

Nearly 60 years ago we were warned of the dangers of agri-chemicals. Rachel Carson in her apt titled book *Silent Spring*, informed us of the disastrous consequences, for both nature and mankind of the chemical mass-warfare that is being waged indiscriminately against insects, weeds and fungi ...with regard to insect pollinators I quote:

*“Man is more dependent on these wild pollinators than he usually realizes. Even the farmer himself seldom understands the value of wild bees and often participates in the very measures that rob him of their services.”*

At the same time there was another publication by Dr. T. Hennekes titled “Systemic Insecticides: A Disaster in the making: and I quote:

Systemic means the seed is coated with the chemical and is absorbed by every tissue in the plant and can persist in the environment for years after application.

“Systemic insecticides are killing bees, butterflies, spiders, bumble bees, caterpillars, earthworms and other creatures which live in the soil. Along with the insects, these insecticides are killing-off the birds and animals which depend on insects for their food: skylarks, partridges, tree sparrows and dozens more species.”. And no birds sing.

**An observation;** Have you noticed how when you once drove on a long journey on a summer’s day, it was often necessary to clean the windscreen of

the dried blood and mangled bodies of dead insects. Have you further noticed that is no longer the case.

In 2013 the beekeepers of Europe were successful in a battle against Bayer Crop Science by having a moratorium placed on the production of their three neonicotinoid crop chemicals by the European Food Safety Authority on the grounds that they posed [an “unacceptable” danger to bees](#). You may like to know that Bayer has a presence in Ireland and that Ireland voted against the moratorium on the first vote and abstained on the second. But as I speak Bayer is not only purchasing Monsanto for \$66 billion to form the largest seed and pesticide company in the world, but is rolling out a new systemic pesticide which poses a threat to bees and other insects. In experiments, the mortality rate of bees that ingest this new pesticide is 50 percent.

60 years on from Rachel Carson’s warning have we learned anything? I believe not in view of the ongoing controversy with the continued licensing of glyphosate which was first licensed in the EU in 2002. Glyphosate is the world’s most used herbicide and the active ingredient in Monsanto’s Round Up. In the past decade 6 Billion tons have been used in fields, gardens and parks.

1. Several studies have demonstrated Roundup’s mind-numbing effect in bees, resulting in their inability to find their way home.
2. Last year the World Health Organisation declared glyphosate a ‘probable carcinogen (cancer causing).’
3. Over 3,000 studies have indicated carcinogenic properties.

4. Is it in the food chain? 43 MEP's from 13 different EU countries recently participated in a urine test and all samples were glyphosate contaminated. **We are what we eat.**

And yet two months ago, the [European commission](#) gave a last-minute reprieve to glyphosate by extending its licence for 18 months just hours before it faced a recall from shops across the continent. The reason given was "pending further study". A responsible EU would have followed the precautionary principle to avoid further public risk.

It is nature that creates the optimal conditions to grow healthy food, not Monsanto, nor Bayer nor Syngenta nor Dow nor Du Pont.

As if the poor bees and other insects have not enough to cope with, the FIBKA agreed at its congress last month, which I attended, to engage with Coillte who are spraying the chemical Cypermethrin in their forests to prevent and control pine weevil attack on non-native spruce and pine trees. This chemical is a real threat to wildlife and especially bees and poses the question as to whether a forestry model, with such a reliance on chemicals, is sustainable?

And now I come to the beekeeper for whom the varroa mite is causing major problems. This mite is a controlled mite of the Asian honey bee which transferred to Ireland around 1998 and which as yet has an incomplete parasite/host relationship. If left untreated, bee colonies will die within two years. It is believed to have killed off nearly all the wild or feral colonies with the result that the managed hives of beekeepers are nearly the only surviving colonies. In their efforts to control the mite, the beekeepers not unlike like the farmers, gardeners, Co. Councils in their efforts to control weeds, have resorted to chemicals at sub lethal doses to bees, to which the

mite is showing continued resistance. The only conclusion to such an approach will be mighty mites and sickly bees.

Where do we go from here?

We certainly need a paradigm shift in our attitude towards our common home, if only for the selfish motive of self preservation. Nature is not so easily moulded and insects, weeds (undesired plants) and fungi are finding ways to circumvent our chemical attacks on them. Our response to resistance is heavier applications of our brute force chemical weapons. But nature will fight back and win. Humankind, as part of nature, has no survival option but to work with nature on her terms. If you agree that chemicals, pose senseless and frightening risks, then you must no longer heed those who tell you to fill our world with these poisonous substances. But what other course is open to us? I leave the final word to Rachel Carson and I quote “A truly extraordinary variety of alternatives to the chemical control of insects is available and all have one thing in common: they are **biological** solutions, based on an understanding of the living organisms they seek to control, and of the whole fabric of life to which these organisms belong.” Ultimately it will be the findings of the enlightened biologist and not the weapons of mass destruction of the chemist that will provide the answers to the basic problems of pest, weed and fungi control.’

I will finish with a quote from Albert Schweitzer, Theologian, Philosopher, Musician, Physician and Winner of the Nobel Prize for his philosophy on “Respect for Life”. He wrote

“Man has lost the capacity to foresee and to forestall. He will end by destroying the earth”.

Please prove him wrong.