

### Spring Tidings

Despite a national preoccupation with rather arcane issues, the tide of spring creeps over the land, sweeping the brown and russets of field and hedgerow with a froth of greenery.

Our first Swallow arrived on the 26<sup>th</sup> March, but was forced to shelter in the old stables when the wintry weather returned. On the 6<sup>th</sup> April, two more swallows came and it was, as ever, a joy to see the three birds cavorting in the sky over the Victorian farmyard.

A few Orange Tip butterflies are now fluttering along the grassy field margins when the sun falteringly appears and a warm west wind plays on last years bleached grasses. These Orange Tips are newly emerged from the chrysalis, in contrast to Red Admirals, Tortoiseshells, Brimstones and Commas, which have all hibernated.

A most interesting insect that can be seen now is the Bee fly. They have brown furry bodies and a distinctive long proboscis. Normally, Bee flies can be seen skimming low to the ground and hovering in front of flowers, with their wings a blur because they are beating so rapidly.

The commonest species, *Bombylius major*, scatters its eggs in a hap hazard manner, literally dropping them randomly over bare areas. The intention is that the minute larva will locate the burrow of a Solitary bee. It then crawls down the chamber where it becomes an ectoparasitoid sucking body fluids from the bee pupa. The fly larva will eventually pupate and emerge as an adult in the following year. *B. major* is common here and several may be seen nectaring together at the same time. They are particularly fond of *Aubretia*. Recently, another rather similar species, the Dotted Bee fly has become plentiful locally. It is of about the same size as *B. major* but has distinctive spots on its wings.

No one should doubt Mr Gove's sincerity in his efforts to make agriculture more conscious of environmental issues than it is at present. Ecological farming can make a huge contribution towards meeting the challenges posed by climate change.

The UK currently contributes 454 million tonnes of CO<sub>2</sub> to the atmosphere annually. Around 15% of this originates from nitrogenous fertilisers used on the land. It is imperative that nitrate applications are radically reduced and more sustainable ways of achieving fertility are utilised. Some farmers already have the answer; by adopting a mixed farming system, where fertility can be generated on the farm itself and not purchased.

But there is more. Farmers can use their crops to sequester carbon, taking it from the atmosphere and locking it up in the soil. Increasing soil carbon by 10% will reduce atmospheric CO<sub>2</sub> by 20%. Current conventional farming practices have depleted soil carbon, but there is scope for turning this around. 1% carbon in 1 square meter depth of soil is equivalent to 10kg per square meter or 100 tonnes per acre. Some plants like Sainfoin and Lucerne have a substantial root architecture and this with the associated microbes and fungal mycorrhiza, makes it possible to sequester some 250 tonnes of carbon to the hectare.

Given a greater capacity of solar and wind generated electricity together with an organised natural cropping program, peat bog restoration and more forestry planting, it should be possible to absorb most of the carbon that we as a society currently produce. Let this be a target for the immediate future and thus an example to the rest of the world. It is only by adopting radical measures such as these that catastrophic climate change can be avoided.

Organic farmers are leading the way. Let us bring the rest of the farming community with us.

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