

The Revd Benji Tyler, Wantage Deanery

Members of Synod.

On behalf of Wantage Deanery I am pleased to speak to this fifth Mark of Mission<sup>1</sup>-focussed motion which is concerned with two distinct yet related issues: encouraging our diocese to **adopt a sustainable approach to flowers in our churches and churchyards and discouraging the current and future use of floral foam (otherwise known as OASIS).**

The Church of England is perhaps uniquely placed to generate as well as model environmental awareness by its very presence in each and every community.

It is with this presence in mind that we bring the subject of church flowers to Synod, so that that which is widely held as glorifying to God might become more so with knowledge and integrity, and with a wider reach than just our churches. Luke 16 verse 10 says “one who is faithful in a very little is also faithful in much”.

In February of this year the Financial Times ran an article entitled *Carbon counter: summing up roses*, with research<sup>2</sup> showing that one single rose stem flown to the UK or grown using fossil fuel in Holland or the UK, creates almost 3kg of Co2; and a Dutch-grown lily well over 3kg - the equivalent of burning 1kg of coal per stem. Whilst some flower growers are attempting to lower their carbon

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<sup>1</sup> To strive to safeguard the integrity of creation and sustain and renew the life of the earth.

<sup>2</sup> <https://www.lancaster.ac.uk/sci-tech/about-us/news/archive/2018/feb/say-it-with-british-flowers/>

<sup>3</sup> <https://www.ft.com/content/604f3f73-65c6-4162-8d45-8c2c768e6952>

<sup>4</sup> As a guide, approx., 800 churches, ten lilies per church, 3kgs Co2 per stem

output by sea-freighting flowers in chilled, low-oxygen containers, taking a month to reach their port of destination<sup>3</sup>, the overall cost to the environment remains extremely high.

As we approach Easter, with all its accompanying floral decoration, it is possible that, by swapping out the relatively modern tradition of unseasonal and imported Easter lilies for the local daffodil, tulip or primrose, the diocese could prevent, by modest estimation, 24 tonnes of Co2<sup>4</sup> from our collective carbon footprint - to say nothing of all the other flowers that will be used to ‘Glorify God’.

Besides the carbon contribution, we might also consider the environment-altering pesticides and chemicals used for the growing and preservation of flowers.

A recent Belgian study<sup>5</sup> identified no less than 107 active substances<sup>6</sup> on 90 flowers found in flower shops and supermarkets, some of which present an acute toxicity, potentially generating a direct effect on the nervous system of handlers and florists.<sup>7</sup>

**The second issue** is the use of floral foam and its greenwashed equivalents ‘biofoam’ and agrawool. Since 1954 OASIS has subtly crept into the furniture and culture of the Church, becoming synonymous with, and even defining, ecclesiastical, wedding and funeral floriculture. We need hardly present Synod with facts about

<sup>5</sup> Published by the *International Journal of Environmental Research and Public Health*

<sup>6</sup> (acephate, methiocarb, monocrotophos, methomyl, deltamethrin, etc.)

<sup>7</sup> [https://www.researchgate.net/publication/308537981\\_Pesticide\\_Residues\\_on\\_Three\\_Cut\\_Flower\\_Species\\_and\\_Potential\\_Exposure\\_of\\_Florists\\_in\\_Belgium](https://www.researchgate.net/publication/308537981_Pesticide_Residues_on_Three_Cut_Flower_Species_and_Potential_Exposure_of_Florists_in_Belgium)

the damage that our own generations' careless use of, and disposal of, plastics causes to the environment<sup>8</sup>.

Suffice to say that, for the simple reason that OASIS is *already* a microplastic, this stuff is more instantly dangerous than any disposable straw. This stuff is not *just* green dust. This stuff is a highly manufactured bi-product of Silicon Valley industries, ground into a million plastic particles and held together by formaldehyde and carbon black, washed down our drains, filling our churchyards and now being found in our oceans' zooplankton.<sup>9</sup>

For two years Wantage deanery has been gradually eliminating foam and embracing floral sustainability throughout its sixteen churches and we want to encourage our diocese to begin to do the same. It will take time, but with the support of A Rocha, Flowers from the Farm, the Sustainable Church Flowers movement as well as the many churches around the country that have already made the conversion, we hope it is possible that this diocese will take a stand on the issue in order that wider awareness may be raised.

Last week I visited the Winston Churchill Exhibition at Blenheim Palace. Purists will forgive me for adapting a quote from that illustrious politician: for it can surely be said of microplastics that...

"we shall find them on the beaches, we shall find them in the burial grounds, we shall find them in the fields and in the streams, we shall find them in the very food we consume..."

It is with these time-limited but important facts that I move this motion on behalf of Wantage Deanery, finishing with an adaptation of another familiar war-themed quote:

"when you go home,  
tell them of us and say,  
for your tomorrow  
we gave up using microplastics today".

Thank you.

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<sup>8</sup> <https://flowersmagazine.com.au/2019/11/27/floral-foam/>

<sup>9</sup> <https://pubs.acs.org/doi/10.1021/es400663f>

*Material from the Article by Rebecca Swinn*

The results would seem to support claims that British grown flowers have a much lower carbon footprint than any other flowers.

Emissions per stem

Dutch Lily: 3.478 Kg CO<sub>2</sub>

Kenyan Gypsophila: 3.211 Kg CO<sub>2</sub>

Dutch Roses: 2.437 Kg CO<sub>2</sub>

Kenyan roses: 2.407 Kg CO<sub>2</sub>

British lily: 0.819 Kg CO<sub>2</sub>(approx. 1/4 of Dutch lily)

British snapdragon (or any outdoor, locally grown flower) 0.114 Kg CO<sub>2</sub>per stem

British Alstromeria: 0.052 Kg CO<sub>2</sub>

Generally, the emissions saved by growing outdoors in Kenya are cancelled out by fertiliser use and air freight emissions, and the Dutch greenhouse grown flowers remain high CO<sub>2</sub> due to highly automated systems and relatively inefficient heating and lighting, plus several hundred miles transport.

Emissions per bouquet

Rebecca's study did not have direct access to the composition of supermarket bouquets, just photographs and possibly mistakenly assumed that one flower head=1 stem. This resulted in stems of lilies being miscounted as 3 stems, rather than 3 open flowerheads on one stem. The bouquet emissions have therefore been recalculated as follows:

5 Kenyan roses + 3 Dutch lily + 3 Kenyan gypsophila – 31.132 Kg Co<sub>2</sub>

5 Dutch roses + 3 Dutch lily + 3 Kenyan gypsophila – 32.252 Kg CO<sub>2</sub>

5 outdoor grown UK snapdragons + 3 UK lily + 3 UK alstromeria – 3.287 Kg CO<sub>2</sub>

15 stems mixed outdoor UK grown flowers, grown and sold locally (eg to Booths supermarket, Lancashire) – 1.71 Kg CO<sub>2</sub>

Whilst there is little difference between the Dutch and Kenyan grown bouquets, and there appears to be some truth to the claim often made that Kenyan roses have a lower carbon footprint than Dutch. **However, the carbon footprint of the British flowers option using commercially grown lilies and alstromeria is approximately 10% of either.**

**OUTDOOR BRITISH GROWN FLOWERS**

A locally outdoor grown bouquet of mixed garden flowers is estimated to have even lower CO<sub>2</sub> emissions, around 5% of the Dutch or Kenyan bouquet.

**Carbon footprints in context**

**Banana – 80g CO<sub>2</sub>**

**Christmas Turkey dinner with vegetables for 6 people – 19kg CO<sub>2</sub>**

**Flying to Paris from London in economy class – 58kg CO<sub>2</sub> per passenger.**