

# ABINGDON HORTICULTURAL SOCIETY NEWSLETTER

No 104

Winter 2018

## Good wishes to all our Members for 2019

### Programme for 2019

A copy is enclosed. The programme cards will be distributed later in the year. Details of day trips will be shown and application forms will accompany the relevant Newsletter.

### AGM

The AGM will be held on Tuesday 15<sup>th</sup> January 2019 at the Northcourt Centre at 7.30pm. The agenda and minutes are enclosed. After the meeting there will be a Quiz. Apologies for absence may be given to Angela Hughes on 01235 529316.

### Membership Renewals

Renewals are due in January, slip enclosed. These may be paid at the AGM or posted to Karen Fisher at No. 1 Langley Road, Abingdon, OX14 1YB . Please renew your membership as soon as possible and no later than 1<sup>st</sup> March 2019.

### Spring Show

This will be held on Saturday 6<sup>th</sup> April 2019.

### Spring Garden Competition

Judging of the Spring Garden entries will take place on 4<sup>th</sup> April. All gardens must be within the Abingdon-on-Thames boundaries. Entries for all show categories including Spring Gardens must be received by the Show Secretary Barbara Bingley at 69 Radley Road, Abingdon, Tel. 01235 521337 by 9pm on Wednesday 3<sup>rd</sup> April.

### Christmas Lunch

Many thanks to Barbara and David for organising the Christmas Lunch.

### Raffle

Thanks to those members who donate prizes for the raffle. We are very grateful for donations.

### Data Protection

The Society keeps Members' details on computer. This information is used only for contacts by the Society and will never be supplied to any other person or organisation.

### RHS Chatsworth Flower Show

As you can see from the attached programme Angela is arranging a sleepover to enable us to visit the RHS Show at Chatsworth. Full details are enclosed. Any member wishing to join this trip should return the application and deposit as soon as possible as we are working on a tight timescale with the tour operator.

# Science News

## Growing fuel.

Since 2009, ExxonMobil and Synthetic Genomics, Inc. (SGI) have been working together to turn algae into low-emission transportation fuel. The collaboration has fostered significant breakthroughs, including most recently the deployment of algae strains at SGI's California Advanced Algal Facility (CAAF). This outdoor field study, along with continued work in the labs and greenhouse, is helping scientists understand how to scale algae biofuels for potential commercial deployment. The research program concentrates on the basic science of algae, including the challenge of increasing the efficiency of photosynthesis, which algae use to produce energy-rich lipids. In 2017 the development of an algae strain that converts carbon into a record amount of energy-rich fat was a major breakthrough. The next phase of the research includes farming of wild algae in outdoor ponds. The goal is to reach the technical ability to produce 10,000 barrels of algae biofuel per day by 2025.

## Information from Kew

Did you know that plants can communicate through an underground network, allowing them to send warning messages and support each other's survival?

This network consists of thin fungal filaments known as hyphae which can stretch over large distances to get to other plants. The network is hugely important as it supports 90% of land plants and so underpins the whole ecosystem.

This fungal network provides resources from nutrient-rich areas found far away and from other plants trading their own supplies. Plants and fungi belong to different kingdoms which makes this partnership particularly special.

Plants are constantly trading via this underground network, allowing those with large amounts of a specific nutrient to share it with others. They can also send chemical warnings to others about potential threats. These stress signals allow plants to prepare their defence systems, making them less vulnerable to nearby dangers.

The relationship itself was established hundreds of millions of years ago as it was beneficial to both plants and fungi. Plants could increase the area from which they received nutrients and be able to communicate with others in the network, while the fungi would have a convenient supply of sugars produced by the plant. Both plants and fungi working together allowed them to function far better than if they were to exist independently. This is nature's form of teamwork!

Fungi consist of many thin hyphal filaments clumped together. Hyphae are ideal for forming a network as they are extremely long and thin and grow very quickly, allowing lengthy pathways to be formed in very little time. Though fungi can be seen above the soil, their real secrets lie beneath.