

## What the Research Shows

### Oilseed Rape (OSR)

Research shows an improvement in seed yield of 15–20 per cent with the introduction of two honey bee colonies per hectare. There is also the benefit of uniform, early pod set with a shorter flowering period (by nearly four days) which could benefit disease control. If oilseed rape is grown for seed, germination success is increased from 83 per cent to 96 per cent through the presence of bees. Oil content is also increased by around four per cent.

### Field Beans

More pods set on the lower trusses of field beans and yield can be increased by 1380 kg / ha with the introduction of managed honey bee colonies at a density of two colonies per hectare.

### Top Fruits and Soft Fruits

Both top fruits and soft fruits benefit from managed pollination with densities of two to six honey bee colonies per hectare. Fruit quality is far superior; seed content is high which makes for better shaped fruit and higher yields. The calcium content in apples is increased with insect pollination, giving the fruit a longer storage life. Honey bees need to be introduced to these crops once there is approximately five per cent blossom. This encourages the bees to work right away. If they are placed too early, they may search for other food sources away from target crops.

Honey bees can be used in a polytunnel or greenhouse environment for soft fruits. Yields can be increased by 30 per cent and fruit size can increase by ten per cent.

## The National Pollination Service

The Bee Farmers' Association operates the National Pollination Service, which matches growers with professional bee farmers able to meet their needs. It is important to ensure orders for pollination are placed in good time as demand is high.

### How it Works:

- The grower places an order with the Bee Farmers' Association and the contract is agreed between the Bee Farmers' Association and the grower.
- The Bee Farmers' Association identifies a suitable bee farmer able to provide the pollination services required.

- Delivery, placement, management and removal of the honey bee colonies is undertaken by the bee farmer.
- The Bee Farmers' Association invoices the grower for the services provided and payment is made to the Bee Farmers' Association.
- The Bee Farmers' Association makes payment to the bee farmer supplying the colonies under the contract.
- Stocks of bees are expected to meet a quality standard as advised by the Department of the Environment, Food and Rural Affairs (Defra).



# Improving Profits through Pollination

A guide for farmers and growers



**BEE FARMERS ASSOCIATION**  
The voice of professional beekeeping

While farmers and growers pay careful attention to maximising crop quality and yields through carefully calculated inputs to prepare soils, to reduce competition from weeds and to control pests and diseases, crop pollination is often left to chance.

This is one as yet underdeveloped opportunity for many farms to potentially improve their bottom line.

### Managed Pollinators and Wild Pollinators

Background levels of wild pollinators, of course, do their bit, as do honey bees kept by hobby beekeepers. But to maximise pollination potential – and, in turn, both the quality and quantity of crops – carefully managed honey bee colonies in the optimum state at the required time should be first choice.

It is not enough to simply place any colony of bees near a crop. The distribution and placement of hives, timing of introduction and the condition of the colonies all impact on effectiveness.

This is where the skill of the professional bee farmer comes in.

Covered fruit pollination, Herefordshire



### Contract Pollination

In some types of farming – fruit farming in the south-east of England in particular – the impact of managed and targeted pollination on crop quality and yields is well recognised and valued. Pollination services are in high demand and growers pay willingly for contracts. However, with field crops and elsewhere in the United Kingdom (UK), there is no such history or associated culture.

This is where an opportunity for competitive advantage lies.

It is a common misconception that pollination and honey production go hand in hand – that the bee farmer's 'reward' is the honey gathered. Colonies must be managed very differently for pollination services compared with honey production, often forgoing the potential to derive a honey crop of economic value.

As with any other input cost, the cost of contract pollination must be factored into calculations and set against the potential for improved income as a result of better crop quality and yield.

Honey bee pollination of field beans, Oxfordshire



### The Bee Farmers' Association

The Bee Farmers' Association (BFA) is the only organisation in the UK to have a honey bee pollination expert with practical commercial experience. It can provide advice and services for all crops grown across the UK, including top fruits and soft fruits, oilseed rape (OSR), field beans and seed crops such as borage, carrots and parsnips.

The BFA is uniquely placed to match the farmer's requirements with professional bee farmers most closely able to meet them.

Contact the BFA to find out more how managed and targeted pollination services provided through the BFA and its members could help with the profitability of your business.

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Honey bee pollination of oilseed rape (OSR), Northamptonshire

