



Transforming school food for the better

Taking a whole-school approach to introducing healthy foods to the lunchtime menu



Dried beans are affordable, versatile and a good source of protein and fibre; they are climate friendly too. Cooking with dried beans is less common in the UK than in many other countries, therefore work needs to be done to make dried beans acceptable to more people. Introducing more dried beans to school meals could be a way to increase acceptability of beans for future generations while increasing the quality of school food.

In the period from February to July 2023, six schools in Leicester City and Leicestershire County worked with researchers from BeanMeals. This food system research project, based at the University of Oxford, tested how innovations in the food system could lead to positive outcomes, including healthier diets with lower environmental impacts.

As part of BeanMeals' research, two new varieties of UK-grown dried beans (Godiva and Capulet) were given to school cooks via local authority caterers and served to pupils in the six schools.

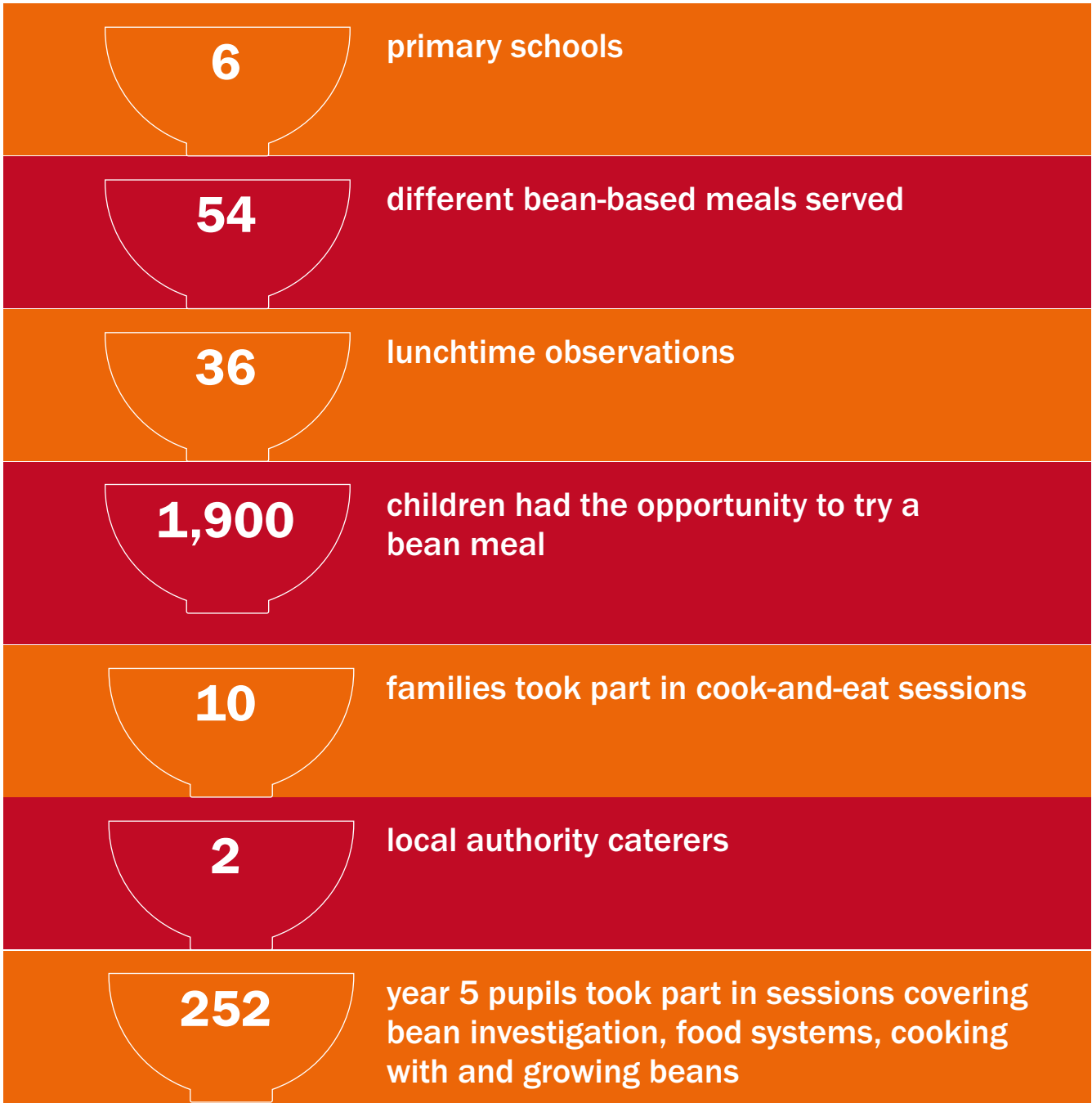
Taking a whole-school approach

In parallel with the introduction of the bean-based meals, Food for Life Soil Association developed classroom curriculum materials. They also trained teachers, midday supervisors and school cooks to further their knowledge around cooking with beans, linking to the curriculum and bean-growing activities. A BeanMeals engagement officer also worked with the pupils to encourage them to feel excited about trying unfamiliar foods.

In the classroom, pupils learned about the health and environmental benefits of adding pulses to their diets via lessons in healthy eating, food systems and food waste; they also took part in cooking and food growing sessions. A board game, Beantopia, was co-designed by BeanMeals and pupils across Leicester City and Leicester County to bring the food system alive and show how beans are healthy and sustainable.



The BeanMeals project in numbers





Taking a whole-school approach

BeanMeals found that working with staff right across the school when introducing a novel food such as dried beans enhanced the impact in the dining hall. There is little focused training for school cooks and midday supervisors, or for teachers in areas of the curriculum such as cooking and growing food. The Beanmeals team worked with these staff to help them understand the benefits of the beans and how they could be used in delicious and nutritious meals.

Focused training for school cooks and midday supervisors gave cooks the confidence to cook with dried beans. It also meant cooks and midday supervisors were able to talk about the beans and encourage the children to try them.

Integrating bean-focused activities, including the Beantopia board game, into the curriculum enhanced pupils' knowledge and curiosity around beans and had a positive impact on the acceptability of the beans at lunchtimes.

We trained:

- 9 x Year 5 teachers
- 30 x midday supervisors
- 6 x school cooks

What are the challenges to getting beans onto school menus?

The research exposed current significant challenges around the school food system in England. In particular:

- Weakly-integrated supply chains
- Tendering
- Distribution and logistics
 - » Adaptability and restraints for local authority caterers
 - » Costs of school meals and ingredients
 - » Local procurement regulations
- Relevant local and national food policies
- Relevant local and national procurement policy
- Scaling up growing of the beans and the implications

It is important to acknowledge that BeanMeals research was only possible because – in collaboration with local authorities – it bypassed the usual public sector supply chains and costs.



Learnings from the BeanMeals whole-school approach



We found that exposure over time together with wider learning and curiosity can encourage familiarity with new foods and lead to a greater willingness to try them. The project encouraged pupils to become familiar with different types of beans in classroom lessons and assemblies. It also provided opportunities for pupils to try UK-grown beans at lunchtimes.

What did we learn?

- Taking a whole-school approach to food where children are consulted and informed is important.
- Being flexible with school menus can help them appeal to children from a range of countries and food cultures.
- Ensuring communication between cooks and caterers, schools and pupils when making changes to the menus makes for a smoother process.
- Listening to and giving autonomy to school cooks can increase creativity and result in a higher uptake of popular dishes.
- Trying new approaches with menus is possible. The hall layout or meal-serving times does not have to be permanent: you can always go back to the way things were.
- Taking an interest in school food at a leadership level can help embed a culture of healthy school meals.
- Considering school approaches to food waste can be another pathway for improving school menus.

Despite the lack of supportive policy, there is still scope to bring UK-grown beans and local sustainably sourced food into school meals.





Understanding the food system through a game

Working with a professional games designer, we co-designed the Beantopia board game with a group of school pupils. Beantopia is a fun way for players of all ages to understand the food system and, specifically, to learn how.

You can download a print and play version of Beantopia as well as a guide to linking play to the KS2 curriculum.

Download Beantopia at www.eci.ox.ac.uk/beanmeals



Tips for taking a whole-school approach to providing healthy and sustainable food

- Add any beans, dried, frozen or tinned to the existing menu. This can be done without too much disruption.
- Ask staff, pupils and the wider community for ideas on improving food in school. Work closely with your caterers and cooks to have an open and informed discussion about lunchtime menus on a regular basis. Include the catering staff and midday supervisors in your school food team.
- Offer tasters of new food to children and parents.
- Invite parents in for a school meal.
- Incorporate food into the wider curriculum.
- Link with your local farm or food producers, arrange a visit and have them come into school to talk to the children.
- Consult pupils to improve the environment of the dining room; this can have a positive effect on how children experience lunchtimes.

Local authority caterers: some local authorities have sustainable procurement policies. If not, work with procurement teams to explain the importance of sustainable local sourcing and collaborate to identify local suppliers. Procurement teams can break up tenders into smaller lots (by area, by specific produce) so smaller local suppliers can more easily fulfill the requirements. Support suppliers in writing bids for tenders, which can be bureaucratic and time-consuming. The new Crown Commercial Services' Buying Better Food and Drink online procurement platform may also be useful for local sourcing and is due to be launched soon.

Public health and sustainability teams may also be able to influence local authority procurement.

Inhouse caterers: tend to be smaller and independent companies. They could supply one school or academy or a whole Multi-Academy Trust (MAT). Academy Trusts have greater oversight over their own procurement budgets than local authority-run schools and may be easier to influence towards sustainability goals. Working with inhouse caterers would include brokering relationships between local suppliers and inhouse catering procurement teams.

Large private caterers: tend to have dedicated procurement teams with a global reach, which means they can source more cheaply, taking advantage of economies of scale. Procurement decision-making is therefore usually at a regional or national level. One way to work with them would be through their voluntary Environmental, Social and Governance (ESG) goals.

An alternative route is to work with wholesale suppliers that hold existing school catering contracts to list more local products on their frameworks. These may be small regional companies or large national wholesalers.



About BeanMeals

The BeanMeals project explores the systemic innovation needed to transform the food system in institutional catering and home-cooking by using healthier ingredients (in particular beans), new public procurement practices and more-local products. Running from June 2022 to November 2024, the project has brought together researchers from several UK research institutions with partners from the public and private sectors.

The research features two quick-cooking navy bean varieties developed by the University of Warwick for UK growing conditions. These bean varieties, Capulet and Godiva, are suitable for a wide range of easily-prepared institutional- and home- cooked meals with lower fat, salt and sugar content.

This report is part of a series of outputs from the BeanMeals project. To find out more, visit www.eci.ox.ac.uk/beanmeals The research was funded through the Transforming the UK Food System for Healthy People and a Healthy Environment SPF Programme, delivered by UKRI, in partnership with the Global Food Security Programme, BBSRC, ESRC, MRC, NERC, Defra, DHSC, PHE, Innovate UK and FSA.



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