Food Dudes (Healthy Eating) Programme

1.0 Introduction

Bord Bia is the agency responsible for promoting the consumption of horticultural produce and the marketing of Irish food and horticulture. Under its horticulture remit, Bord Bia manages and oversees implementation of the Food Dudes Programme. This is led by Mike Neary, Director of Meat & Horticulture, Bord Bia.

2.0 Background to the Food Dudes Programme

Fruit & vegetables are important for a healthy diet, however convincing children and adults, to consume 7 portions of fruit & vegetables a day is challenging. The Food Dudes Programme recognises that eating habits are established early in life and so efforts to produce long term dietary improvements should start with children.

The Food Dudes Programme was developed by Bangor University, Wales as an evidence-based, incentivised behaviour changing programme to increase consumption of fruit and vegetables by school children. A pilot in Ireland in 2002/3 showed that it did increase fruit & vegetable consumption. A national roll-out commenced in 2007 and ran to 2014, covering 3,100 primary schools and 475,000 pupils with funding from the Department of Agriculture Food and the Marine and, since 2009, an EU financial contribution under the EU School Fruit and Vegetables Scheme.

In 2015 a Food Dudes Boost Programme was introduced to revisit schools that had participated in Food Dudes, enabling children new to the schools to benefit as well as encouraging senior school children to continue eating fruit & vegetables. The Food Dudes Boost Programme focuses primarily on the Junior Cycle (4 to 8+ years old). By the end of the 2016/2017 school year a total of 2,216 schools and 338,318 children had participated in Food Dudes Boost.

3.0 How Food Dudes Works

3.1 Development of Food Dude Programme

Food Dudes operates on the basis of scientific findings that a liking for fruit & vegetables can be developed through repeat tastings, reinforced by small rewards and role model encouragement and carried out in two Phases:

- Phase 1 Intervention Phase (16 days focused on the school)
- Phase 2 Maintenance Phase (from day 17 focus moves to the home)

3.2 Programme components: The three 'R's:

3.2.1 Repeat tasting of fruit and vegetables

Portions of fruit & vegetables are provided to the school children over the 16 day Intervention Phase (Phase 1). Each child receives a portion of ready to eat fruit and ready to eat vegetables per day. Four different fruit and vegetables are used, so each child tastes each fruit and vegetable four times.

Fruit & Veg Repeat Tasting - Phase 1 - 16 days

& Day 1 5 9 13

Day 2 6 10 14

Day 3 7 11 15

Day 4 8 12 16

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3.2.2 Food Dude Rewards

The rewards consist of customised Food Dude items e.g. pencils, water bottles, stickers, school rubbers, pedometers given to the children after they have tasted the fruit and vegetable portions provided. A home pack is also provided to encourage children to eat fruit and vegetables at home as well as at school, and to help parents become actively involved in the programme.

3.2.3 Role models - Food Dude DVDs

Peer modelling DVDs have been produced featuring the heroic "Food Dudes"- a group of two boys and two girls aged between 12 and 13 years. In the course of their adventures these "Food Dudes" frequently eat, enjoy and extol the virtues of a variety of fruit & vegetables. In addition, letters from the Food Dudes to the children are read to the class by the teacher to praise and encourage and to remind the children of what to do to receive a Food Dude reward.

3.3 Methodology and Management

- Following a school's agreement to participate, the programme is introduced to the teachers by the Food Dudes Programme Manager (appointed following a tendering process by Bord Bia). One or two teachers in each school are selected as Teacher Co-ordinator and receive in-service training from the Programme Manager. A start date for the 16 day intervention period is agreed. The Programme Manager co-ordinates the delivery of fruit & vegetables to the school and arranges delivery of resource material i.e. DVDs and rewards.
- The children are provided with one portion of fresh fruit and one fresh vegetable portion per day for each day of intervention period during which the teacher shows the DVDs and distributes rewards. Over the 16 days 4 different fruits and 4 different vegetables are tasted/eaten on four different occasions.
- The DVD is shown on a 'two days on, one day off' cycle. The teacher gives each child his/her allocated fruit and vegetables. Once children are finished eating the teacher gives those who qualify for the day's prize, their reward (for tasting both fruit and vegetables on the first 4 days, then for eating all fruit and vegetables for the next 12 days).
- On day 1 children are given a home diary to take home to their parents. The home diary includes; a covering letter containing information about the project and the importance of fruit and vegetable consumption, a fruit and vegetable chart on which children record each time they eat a portion of fruit or vegetables and healthy eating information and tips. At the end of phase 1 (intervention) the children receive two small containers/ a container with two compartments to use in phase 2 (maintenance) to bring fruit and vegetables to school for lunchtime. A letter includes tips on how to incorporate fruit & veg into lunchtime.
- Completed fruit and vegetable charts are returned to teachers on the day after the intervention finishes. Teachers reward children who, in their opinion, have made an effort to eat extra fruit and vegetables at home.
- Following the intervention phase, the maintenance phase commences. The objective here is to sustain increased rates of consumption of fruit & vegetables. Teachers continue to encourage children to eat fruit & vegetables at school and at home and certificate rewards are provided for consuming fruit & vegetables in school. Achievements are recorded on the wall chart. The ongoing involvement of teachers and parents to keep children motivated is critical to the success of this phase. See www.fooddudes.ie.

4.0 Food Dudes Boost Programme

The Food Dudes Boost Programme was introduced in 2015. It maintains all the key element of the original programme but uses fewer rewards and has a stronger focus on the Junior Cycle, ensuring that the Programme can reach more children in a school year. It operates as follows:

Junior Classes:

- 16 days of tasting a portion each of fruit and vegetables (4 of each tasted 4 times)
- 4 physical rewards (instead of 16) are provided during the 16 day provision of the fruit and vegetables portions with sticker rewards provided on the other 12 days
- 1 lunchbox with two compartments (one for fruit and one for veg) is provided at the end of phase 1 to use in phase 2 of the programme

Senior Classes: The boost programme for senior classes includes:

- 8 tasting days
- 1 physical reward provided on each alternative tasting day (4 in total)
- On the 4th tasting day 1 lunchbox with two compartments (one for fruit and one for veg) is provided for use during phase

Additional Tasting days (Junior & Senior Classes):

During Phase 2 of the programme each school gets two additional tasting day deliveries (fruit and vegetable combination) for both Junior and Senior children.

5.0 Role of the European Union

The Food Dudes Programme has operated in Ireland through the EU School Fruit and Vegetables Scheme since 2009. An annual strategy is drawn up by the Department of Agriculture, Food and the Marine in conjunction with Bord Bia and a stakeholder group (Departments of Education and Skills, Children, Health and Social Protection). This is forwarded to the European Commission for approval of an EU funding allocation.

From 1 August 2017, a Single EU School Scheme provides for funding of fruit and vegetables and limited funding of accompanying measures to promote interest in and consumption of fruit and vegetables. (Commission Implementing Regulation (EU) 2017/39 and Commission Delegated Regulation (EU) 2017/40 (O.J. L/5 of 10.1.2017)

As part of the EU development of a single school scheme the Department of Agriculture, Food & Marine has submitted a six year strategy to the EU for delivery of Food Dudes through the EU School Scheme. The strategy includes a period of pilot testing in the

2017/2018 school year of some new elements/activities that might supplement the core elements of Food Dudes Boost in future years, such as gardening activity, healthy eating days/weeks, project work related to healthy eating, on line activities, sport linked activities etc. It is envisaged that the additional aspects will be particular relevant to senior class children. The prime motivation and criterion of success will remain increased consumption of fruit and vegetables.

6.0 Sources of data supporting evidence based Food Dudes Programme

- **6.1 Studies by the Irish Universities Nutritional Alliance (IUNA).** The IUNA scientific dietary study into children's diets in 2004 found that children's intake of fruit and vegetables in Ireland was less than recommended. www.iuna.net
- 6.2 Scientific Study of Food Dudes Pilot Increasing parental provision and children's consumption of lunchbox fruit and vegetables in Ireland: the Food Dudes Intervention (2002) (Published in the European Journal of Clinical Nutrition 2008). Fruit & vegetables were provided to children daily at 2 schools, the experimental school (228 children) and the control school (207 children) over 16 days. In both schools, parental provision and children's consumption of fruit & vegetables were assessed at baseline and 12 months later. Food Dudes accompanying measures (peer modelling, rewards, video, home pack for parents) were implemented at the experimental school only. At the 12-month follow up point, parents of children in the experimental school provided significantly more lunchbox fruit, vegetables and juice, compared with the control school and initial baseline. Their children's consumption was also higher, indicating that Food Dudes produced a durable effect. See weblink:

Food Dudes Programme/ EU School Fruit and Vegetables Scheme - Department of Agriculture, Food & the Marine.

- **6.3** EU School Fruit & Vegetables Scheme evaluations 2003 to 2010 5 independent evaluations were carried out between 2003 and 2010. Surveys distributed to programme co-ordinators, teachers and parents reported that 92%+ (for all 5 surveys) of parents indicated their child enjoyed the programme and most teachers (99%+) reported that children in their class liked the programme. The findings were presented by Ireland to the EU Commission in February 2012 in a document titled "The Food Dudes Healthy Eating Programme A review of the evaluations completed to date".
- **6.4 Evaluation 2011** (University College Dublin). This evaluation at 86 schools in May 2011 used a specially designed diary (Food Dudes Quick Eating Diary) to measure fruit, vegetable and snack consumption prior to the commencement of the programme (baseline data) and at the end of the programme (follow-up data). The overall findings showed that fruit consumption increased by c. 20% (from 58.5% to 78.5%) and vegetable consumption by 42% (from 11.5% to 53.5%).

6.5 Evaluation 2016 – (University College Dublin). This study evaluated the long term impact of the Food Dudes Programme on schools that participated in the 2010-2011 school year. The results showed, that although the immediate impact was not sustained to the same degree over a six-year period, the number of senior pupils bringing and consuming fruit and vegetables, remained significantly higher than before the Food Dudes intervention. An interesting finding that emerged from the evaluation is that consumption rates were high at baseline and remained high at follow-up when increased portions were brought. This suggests that the majority of children ate what was provided in their lunchbox even when additional portions of fruit and vegetables were provided at follow-up. This underpins and highlights the importance of parental influence on children's eating practices in school.

See weblink:

Food Dudes Programme/ EU School Fruit and Vegetables Scheme - Department of Agriculture, Food & the Marine

7. Recommendations

Roll-out and development of Food Dudes Boost should continue with a particular focus on piloting accompanying measures to Senior Cycle primary school children and rolling them out more widely where they are found to increase consumption of as well as interest in fresh fruit and vegetables. Parental involvement should also be considered.