Assessment of EU School Fruit Scheme in the Netherlands

Summary report

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Assessment of EU School Fruit Scheme in the Netherlands

The EU School Fruit Scheme is implemented by the Horticultural Product Board in collaboration with Steunpunt Smaaklessen & SchoolGruiten; GroentenFruit Bureau; The Netherlands Nutrition Centre; and the Dutch Ministry of Economic Affairs, Agriculture and Innovation

The assessment surveys were conducted by Right Marketonderzoek in Zwolle
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1 Introduction

1.1 Assessment of EU School Fruit Scheme in the Netherlands
The EU School Fruit Scheme is a programme aimed at increasing fruit and vegetable consumption among primary school children. It seeks to lay the foundations for good eating habits in the future. Children have much to gain from healthy eating habits: those who eat enough fruit and vegetables and are physically active every day are more comfortable with themselves, are less likely to get a cold, feel fitter, enjoy sports and games more and learn easier. What pupils eat is the responsibility of their parents or guardians, but with the EU School Fruit Scheme, schools can help children learn healthier eating, laying the foundation for a healthy life.

Participating schools receive two to three pieces of fruit and vegetables per week for each of their pupils, free of charge, for up to ten weeks. Delivery takes place once a week. The objective is for pupils to continue eating fruit and vegetables even after the scheme (in schools). Over the period 2009-2012, schools were entitled to participate once in the EU School Fruit Scheme. This gave as many schools in the Netherlands as possible the opportunity to receive school fruit for a period.

1.2 Regulations for the EU School Fruit Scheme
The implementation of this scheme is based on the following European regulations:

- Council Regulation (EC) No 13/2009 of 18 December 2008 amending Regulations (EC) No 1290/2005 on the financing of the common agricultural policy and (EC) No 1234/2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single GMO Regulation) in order to set up a School Fruit Scheme

1.3 Organisation
The EU School Fruit Scheme is supported by the Dutch Ministry of Economic Affairs, Agriculture & Innovation (EL & I), Ministry of Health, Welfare and Sport; the Horticultural Product Board; Steunpunt Smaaklessen & SchoolGruiten; The Netherlands Nutrition Centre; and GroentenFruit Bureau.

The coordination and implementation of the EU School Fruit Scheme lies with the Horticultural Product Board, under the ultimate responsibility of the Ministry of EL & I.

A School Fruit Steering Committee was established, on which the above parties all sit. Other members of the Steering Committee include: sponsors/suppliers; the Dutch Fruit Growers Organisation (NFO); Frugi Venta (Umbrella organisation for trade in fruit and vegetables); and the Dutch Produce Organisation (DPA). The School Fruit Steering Committee meets approximately five times a year.
Steunpunt Smaaklessen & SchoolGruiten (Point of Support for Taste Lessons and School Fruit & Veg Consumption) maintains contact with schools applying for the EU School Fruit Scheme and is responsible for the dissemination of supporting teaching materials to school fruit schools. They also act as point of contact for the Dutch regional Public Health Services (GGD).

Steunpunt SchoolGruiten is also responsible for the implementation of the programmes SchoolGruiten and Smaaklessen. The SchoolGruiten programme is accessible to all primary schools in the Netherlands and focuses on stimulating the group consumption of fruit and vegetables by children in primary schools. The existing SchoolGruiten programme has no standard free delivery period. The EU School Fruit Scheme aims, through the one-time provision of free school fruit, to structurally embed this programme by stimulating schools to continue what is fondly known in Dutch as gruiten (‘doing fruit and veg’, from ‘groente en fruit’) upon completion of the scheme and to become an official ‘Gruitschool’.

Smaaklessen (Taste Lessons) is an educational programme about food and taste for all eight year groups of Dutch primary education. This educational programme focuses on the experience of food. Tasting, smelling, hearing, feeling and looking: children use all their senses to explore their daily food. Taste lessons are all about giving pupils a positive perspective on food: one which makes it more tempting to discover new products and flavours. A child with a positive attitude towards food will also want to discover more about it!

The Horticultural Product Board maintains close contacts with Steunpunt and holds monthly meetings with them in the School Fruit Working Group.

### 1.4 Funding

The EU School Fruit Programme was 50% financed during the school years 2009-2012 by the EU and 50% from Dutch money. During the 2009-2010 school year, the national funding was met by the Horticultural Product Board. Bar the implementation costs, no funding has been made available by government. The Horticultural Product Board put a great deal of effort into finding sponsors for the scheme at the outset; this was achieved by mid-2010. In school year 2010-2011, a small proportion was contributed by the Horticultural Product Board and the rest was contributed by sponsors from the Dutch fruit and vegetable sector. In the 2011-2012 school year, national funding will be contributed entirely by the sponsors. The sponsors are also the suppliers of fruit and vegetables for the programme: in addition to their own contributions, they also helped collect further funding by finding other sources, such as local sponsorship, including from local government.

Sponsors invest up to €2.9 million in the European School Fruit Scheme; the European Union doubles this amount up to €5.8 million. Payment of the grant is made to suppliers.

The Horticultural Product Board has set up implementation regulations, including the imposition of sanctions. A circular is issued every year on the basis of this regulation, setting out the entire procedure for the EU School Fruit Scheme for that school year.

### 1.5 Participation of schools

The EU School Fruit Scheme is aimed at primary schools in the Netherlands. The age of children in primary schools is between 4 and (normally) 12 years old, distributed across year groups 1 to 8. The Netherlands has about 7,200 eligible primary schools with an average of approximately 225 pupils. In total, therefore, a potential target group of approximately 1,620,000 children is at stake. Schools can participate only if all their year groups are signed up. Another condition is that fruit/vegetables are offered to all children in the participating year groups.
Primary schools were chosen as the target group as it is important for children to learn healthy eating habits, such as the importance of fruit and vegetables, from earliest years. Children are also easy to reach at primary school, since they eat in their classroom, which lends itself to a school fruit project. So EU School Fruit brings a fun moment to the classroom without fail, which children enjoy participating in: because seeing food makes you want to eat it! There is also the opportunity to talk about eating fruit and vegetables in class.

Eligibility for the EU School Fruit Scheme is subject to certain conditions for the schools. This regulation applies only for delivery to registered schools who have received prior written consent to participate in the EU School Fruit Scheme.

**Overview of schools and children participating in the EU School Fruit Scheme**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of schools</th>
<th>Number of pupils</th>
<th>Number of delivery periods</th>
<th>Delivery periods</th>
<th>Number of pcs per pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-2010</td>
<td>792</td>
<td>180,583</td>
<td>1</td>
<td>5-10 weeks</td>
<td>10</td>
</tr>
<tr>
<td>2010-2011</td>
<td>1,501</td>
<td>296,974</td>
<td>2</td>
<td>10 weeks</td>
<td>20-30</td>
</tr>
<tr>
<td>2011-2012</td>
<td>2,279</td>
<td>440,879</td>
<td>3</td>
<td>10 weeks</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>4,572</td>
<td>918,436</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In total, the EU School Fruit Scheme reached 63% of primary schools in the Netherlands and 57% of primary school children. The distribution of participating primary schools nationally was proportionally spread evenly by region and by type of school.

### 1.6 Suppliers

Suppliers of school fruit must meet certain requirements in order to be recognised by the Horticultural Product Board. The requirements may be divided into product requirements and administrative requirements. All recognised suppliers have been included by the Horticultural Product Board in the register of recognised suppliers. This information was passed by the Horticultural Product Board to Steunpunt SchoolGruiten and posted by Steunpunt on the EU School Fruit website [www.euschoolfruit.nl](http://www.euschoolfruit.nl).

A supplier can only submit a support request to the Horticultural Product Board if it is in possession of all of the following documents:

1. A copy of the school fruit agreement
2. A detailed invoice of the supplier with at least the following information:
   - Distributed quantities, with delivery dates;
   - Price of the products delivered
3. An itemised receipt from the school

Support unduly paid is recovered.

The number of school fruit suppliers fell sharply over the past year, leaving three major school fruit suppliers. The Horticultural Product Board is the primary contact for suppliers.
1.7 **School fruit products**

Products eligible for subsidy are products such as those listed in Annex 1, Parts IX (Fruit and Vegetables) and XI (Bananas), of Council Regulation 1234/2007 which meet the following conditions (see Annex 1):

- Quality: class 1. Fresh and processed (= cut) produce: i.e., no processed produce.
- Types and variation: at least 1 x vegetable and up to 4 x the same fruit.
- Minimum weight per portion = 70 grammes for processed and 80 grammes for unprocessed product.
- Products funded by the School Fruit Scheme must be destined for consumption by children in primary schools.
- With sustainability in mind, preference is to be given to seasonal produce.
- With regard to products, preference is given to suppliers who have paid attention to the issue of sustainability both in terms of cultivation and of distribution.

1.8 **Teaching materials**

The following supporting resources were developed for the EU School Fruit Scheme:

- Website [www.euschoolfruit.nl](http://www.euschoolfruit.nl)
- Letter prior to the launch, with information about the programme, important data and tips to get off to a good start
- “Tasty lessons with EU School Fruit” teaching material package on fruit and vegetables for group years 1-8
- “EU School Fruit” posters for schools
- “Did you know?” poster of various types of fruit and vegetables
- Folder: “From EU School Fruit to SchoolGruiten”
- Digital EU School Fruit newsletter for participating schools, giving information about the programme and the produce supplied
- Kick off of EU School Fruit Scheme at the beginning of the school year
- A call on the school, in which schools receive support, once the free School Fruit period has ended, to incorporate fruit and vegetable consumption into school policy
2 Assessment of EU School Fruit Scheme

2.1 Introduction of EU School Fruit Scheme baseline and interim measurement
An impact measurement of the EU School Fruit Scheme with a baseline and interim measurement was held among schools that have received school fruit in the period January-March 2011 (10 weeks). The baseline measurement took place prior to the start of the school fruit scheme, the interim measurement immediately upon completion. The aim of the survey was to gain insight into the knowledge, attitude and behaviour with regard to fruit and vegetables of children who had received School Fruit for ten weeks. Their parents were also involved in the survey: they, too, were asked for their assessment of School Fruit and its impact. The results of this survey form the basis for measuring the impact of the School Fruit Scheme.

2.2 Target groups
- Children who participated in the EU School Fruit Scheme. Only pupils in the upper year groups (grades 6, 7 and 8) were approached in this survey. Children from these year groups are able to provide a good estimate of their consumption and are old enough to complete a questionnaire properly.

- Parents of children who recently participated in the EU School Fruit Scheme. For the survey, parents of pupils from all year groups were approached, distributed among the reception year groups (grades 1 and 2), the middle years (grades 3, 4 and 5) and the upper year groups (grades 6, 7 and 8).

The surveys were conducted online and were carried out by the independent market research firm Right Marktonderzoek of Zwolle. They compiled extensive reports based on the surveys. Consultation took place with Stichting Marktonderzoek Tuinbouw (Horticulture Market Research Foundation).

In total, 16 schools participated in the survey, including two schools spread over two campuses each. 639 children participated in the baseline measurement, and 416 in the interim measurement. 395 parents participated in the baseline measurement, and 311 in the interim measurement.

2.3 Questionnaires
Two questionnaires were drawn up for the survey, one for children and one for parents. Existing questionnaires used as part of the 2008 assessment of SchoolGruiten were used as the basis for the questionnaires. The questionnaire is based on the questionnaire for ProChildren, the European fruit and vegetable promotion scheme. In preparing the questionnaire, account was also taken of the requirements for assessment set by the EU School Fruit Scheme.

2.4 Process evaluation of schools
Besides the baseline and interim measurement, a process evaluation was also carried out during the same school fruit period among participating schools. The purpose of the process evaluation was to provide insight into the implementation of the EU School Fruit Scheme and satisfaction with the programme among schools. In the end, 456 schools completed the online questionnaire. Of the total of 703 schools invited, this represents a response rate of 65%. The response is sufficient to be able to draw reliable conclusions from.
3 Results of the baseline and interim measurement of the EU School Fruit Scheme among children

3.1 Healthy lifestyle awareness among children
No changes were observed in this area as against the baseline measurement previously carried out.

Children were first asked what they thought you should do to live healthily. Children have considerable awareness of the benefits of eating fruit and vegetables on their own health. Almost 70% of children named eating fruit as one of the things you must do to lead a healthy life, and more than half mentioned eating vegetables. The following aspects were also mentioned with regard to diet: do not snack too much, do not eat too much fat, take vitamins, eat bread, and have a varied diet.

The children also found it important to work out or get enough exercise: this was also something mentioned by more than half of them. To a lesser extent, but also mentioned, are getting enough sleep (8%), playing outdoors (11%) and refraining from smoking. Healthy drinks were also deemed important by the children, albeit to a significantly lesser extent.

3.2 Bringing fruit and vegetables to school
The children were also asked how often they brought their own fruit or vegetables to school. It turned out that over two-thirds of the children brought fruit to school at least once a week, while the figure was one-third for vegetables. The percentage of pupils who said they brought vegetables is therefore slightly higher than at the baseline measurement (36% as against 30%).

The majority of children who brought fruit or vegetables did not do so every school day. Further analysis shows that children who do not bring fruit to school also ate fewer portions of fruit a day. Furthermore, 37% of the children who eat fruit every day brought no fruit to school (in the baseline measurement, this was one-quarter). Girls brought fruit and/or vegetables to school more frequently than boys.

3.3 Biscuits slightly waned in popularity due to School Fruit
Turning our attention to the bringing of snacks to school, we see a positive effect following the School Fruit period. Biscuits have become a less popular snack: their share has markedly declined from 65% at baseline measurement to 55% in the interim measurement. It appears that slightly more children brought along fruit and vegetables to school in the wake of the School Fruit period and that this also occurred more frequently. Half of the children also said they occasionally brought fruit to school for the break; one-fifth occasionally brought vegetables. Girls brought fruit to school slightly more often than boys.

It should be noted that when specifically asked about the bringing to school of fruit or vegetables (3.2), the children stated more frequently that they brought along fruit or vegetables than when asked what they ate or drank at school during the break (3.3).
The *bringing* of fruit to school seems to have a positive effect on total fruit consumption of children: children who brought fruit to school ate more portions of fruit per day than children who did not bring fruit to school. This appears to bear out the survey among parents indicating that children of parents who give their child fruit to take to school eat an average of 1½ portions of fruit, compared with one piece of fruit for children whose parents do not.

### 3.4 Almost all children take part in the School Fruit Scheme

Of the children who participated in the interim measurement, the vast majority (96%) participated in eating School Fruit in the period January to March 2011. In total, three-quarters of the pupils said they always ate it if it was handed out; 21% participated, but not always, if it was handed out.

### 3.5 Apple is the most popular school fruit

Of the distributed fruit, the apple, banana and pear were named as tastiest by the children. The apple and the banana were also mentioned by children as their favourite fruit at the baseline measurement. Of the distributed vegetables, children named the carrot, the tomato and the cucumber as tastiest.

#### Table: Which fruit and vegetables of the School Fruit Scheme do you find tastiest? (N=401)

<table>
<thead>
<tr>
<th>Fruit</th>
<th>%</th>
<th>Vegetables</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>90%</td>
<td>Carrot</td>
<td>45%</td>
</tr>
<tr>
<td>Banana</td>
<td>77%</td>
<td>Tomato</td>
<td>38%</td>
</tr>
<tr>
<td>Pear</td>
<td>59%</td>
<td>Cucumber</td>
<td>38%</td>
</tr>
<tr>
<td>Kiwi</td>
<td>49%</td>
<td>Pepper</td>
<td>18%</td>
</tr>
<tr>
<td>Mandarin</td>
<td>49%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>29%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strawberry</td>
<td>19%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grape</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plums</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melon</td>
<td>4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peach</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pineapple</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.6 Fruit and vegetable consumption almost equal to baseline measurement

As in the baseline measurement, children felt that they did eat enough fruit, yet only 45% of children ate fruit every day — which was also the case in the baseline measurement. On in five children thought that it was not necessary to eat at least two daily portions of fruit. Parents were more aware of the directive: more than 70% of parents thought a child should eat two portions of fruit. Moreover, almost all were familiar with the directive that applies to themselves (2 x fruit and 200 grammes of vegetables), yet only two-thirds said they complied with the directive.

As with fruit, children felt that they ate enough vegetables; yet the facts are that 40% of children eat vegetables daily and 22% do so 6 days a week. On average, they eat 1.8 tbsp of vegetables per day, with which they do not reach the directive of 150 grammes of vegetables per day. There does seem to be a small effect on vegetable consumption: 40% stated that they ate fruit daily; this was only 34% at the baseline measurement.
3.7 School Fruit also encourages consumption at home
Almost all the children said the School Fruit Scheme encouraged them to eat more fruit and vegetables at home or at school. About 60% of children said that they were encouraged to eat more fruit and vegetables at home, and one-third were more likely to bring fruit and vegetables to school. Half of the parents were also encouraged by the School Fruit Scheme to give their children more fruit and vegetables, particularly at home. Moreover, a smaller proportion of parents were more aware of eating fruit and vegetables. The stimulus effect is bigger among children than among their parents.

The interim measurement is not yet sufficient grounds to determine whether all this encouragement has actually had an effect on consumption. The consumption of fruit and vegetables among children is almost equal to the baseline measurement. The incentive effect is a short-term effect, and continuation of School Fruit is expected to have a visible effect on consumption.

3.8 EU School Fruit Scheme is highly appreciated
The EU School Fruit Scheme is very much appreciated by the children. When asked how much they enjoy eating fruit and vegetables with their own classmates, pupils gave an average rating of 8.3 out of ten. Almost all the children took part in eating fruit and vegetables where they were handed out free in class two or three times per week.

The School Fruit Scheme is educational
Almost all children felt that they had learned something from the EU School Fruit Scheme. Points learned which they mentioned were: why fruit and vegetables are good for you (44% mentioned this); and knowledge of the directive (2 x fruit and 150 grammes of vegetables per day). Furthermore, by eating fruit and vegetables, children had become aware that it tastes good and that there is a great variety.

Around two-thirds of the pupils enjoyed hearing about fruit and vegetables from their teacher. The more interesting the children found it, the higher score they gave for the extent to which they enjoyed eating school fruit with classmates.

Continuing school fruit
Because the School Fruit Scheme was such a success, three-quarters of children would like it to continue. It does not really matter to them whether that happens through a fruit subscription or whether they have to bring school fruit themselves.
SCHEME: KNOWLEDGE — ATTITUDE — CHILDREN’S FRUIT AND VEGETABLE CONSUMPTION BEHAVIOUR

On the basis of the interim measurement

<table>
<thead>
<tr>
<th>Fruit consumption</th>
<th>Vegetable consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td><strong>Knowledge</strong></td>
</tr>
<tr>
<td>60% of children knew that two pieces of fruit are the recommended daily consumption.</td>
<td>66% of the children thought it was not necessary to eat vegetables every day.</td>
</tr>
<tr>
<td>Almost one-fifth (18%) of children thought it was not necessary to eat fruit every day.</td>
<td></td>
</tr>
<tr>
<td>Two-thirds (68%) knew that you should eat many different types of fruit.</td>
<td></td>
</tr>
<tr>
<td><strong>Attitude</strong></td>
<td><strong>Attitude</strong></td>
</tr>
<tr>
<td>Over half of the children found fruit tasty: 64% found it very tasty and 34% liked certain types of fruit and disliked others.</td>
<td>Over half of the children found vegetables very tasty: 38% gave a resounding ‘yes’ and 60% said they liked some types of vegetables and disliked others.</td>
</tr>
<tr>
<td>Most children (93%) thought they ate enough, or even a lot of, fruit.</td>
<td>Half (50%) of the children said that they ate ‘enough’ vegetables and 43% ate a lot of vegetables.</td>
</tr>
<tr>
<td>A majority (65%) of the children who still do not eat fruit every day would like to.</td>
<td>Of the children who still did not eat vegetables every day, 34% would like to do so every day.</td>
</tr>
<tr>
<td><strong>Behaviour</strong></td>
<td><strong>Behaviour</strong></td>
</tr>
<tr>
<td>45% of children ate fruit on a daily basis.</td>
<td>40% ate vegetables daily.</td>
</tr>
<tr>
<td>On days that children ate fruit, 30% ate 1 portion per day, 18% ate 1½ portions and almost half (46%) ate two portions per day or more.</td>
<td>89% of the children said they ate a hot meal every day.</td>
</tr>
<tr>
<td>On average, children ate 1.3 portions of fruit per day</td>
<td>Children ate an average of 1.8 tbsp of vegetables with hot meals.</td>
</tr>
<tr>
<td>Nearly half (48%) ate many different types of fruit.</td>
<td>A quarter usually ate a salad with a hot meal, and nearly half did so occasionally.</td>
</tr>
<tr>
<td>79% of the children had a fixed fruit time, especially in the afternoon after school (39%) or during breaks at school (33%).</td>
<td>Just over half (57%) of children also ate vegetables at times other than with hot meals, such as at lunch, before dinner, after school or during breaks at school.</td>
</tr>
<tr>
<td>49% of children occasionally ate fruit at school.</td>
<td>17% of children occasionally ate vegetables at school.</td>
</tr>
</tbody>
</table>
4 Results of the baseline and interim measurement of EU School Fruit among parents

4.1 Three-quarters of parents occasionally pack school fruit for their children

From the immediate wording of the question, it transpired that some three-quarters of parents sometimes packed fruit. This did not differ from the baseline measurement. Some 40% of parents sometimes packed vegetables for school. This percentage is significantly higher than at the baseline measurement, when approximately one-quarter stated this. It is also higher than when participants were asked what they packed for their child for school breaks (table above). The parents who did pack vegetables generally did so one day per week; parents packed fruit on multiple days.

Children of parents who never packed their children fruit for school also ate less fruit per day on average than children whose parents did pack them fruit for school (1.0 piece of fruit for those whose parents never pack fruit for them, compared with 1½ pieces for those who pack fruit daily).

4.2 School fruit is highly appreciated by parents

Almost all parents stated that their child participated in eating school fruit during the School Fruit scheme. The majority of parents believed their child enjoyed eating school fruit with classmates. The average score was a 7.8.

Parents were already positive about this scheme prior to its launch. The interim measurement shows that they have kept this positive attitude. 80% of parents felt the school fruit scheme was very good, and almost all the remainder of them found it “quite good”.

Just over a fifth of the parents felt the school fruit scheme had a stimulating effect on the children. As already mentioned several times in the baseline measurement, it was repeatedly heard that “seeing food makes you want to eat food”. Raising awareness among children that it is good to regularly eat fruit and vegetables was mentioned by 16%, as was the fact that it is good for children whose parents would normally not pack fruit (or not very much) for school. An equally large group said more generally that it was good for children to eat fruit/vegetables and that the School Fruit scheme was therefore a good thing. These reasons had also been the ones mentioned most often in the baseline measurement.

*Majority saw educational impact in the School Fruit Scheme*

Three quarters of parents believed that their child had learned something about eating fruit and vegetables during the School Fruit period. Most commonly mentioned was the fact that their child had learned why it is good to eat enough fruit/vegetables. About a quarter of parents said their child now knew more about different types of fruit and vegetables. Furthermore, 17% of the parents said that their child had learned that it is tasty, and 13% that two pieces of fruit and 150 grammes of vegetables per day is good for a child.
4.3 Two-thirds of parents were encouraged to give children more fruit and vegetables
Approximately two-thirds of parents felt encouraged to some degree to pack more fruit or vegetables for their child. Parents felt somewhat more led to give fruit and vegetables at home than to pack it for school. More than a third had certainly been encouraged by the School Fruit scheme to give their child more fruit/vegetables at home; this figure was one-quarter for packing fruit/vegetables for school.

4.4 Small fraction of parents also encouraged by scheme
One-third of parents stated that the school fruit scheme had made them more aware of eating fruit and vegetables; 28% did not feel it had made them more aware. 29% of parents had themselves been encouraged by the scheme to eat more fruit and vegetables, while about the same percentage of parents were not encouraged.

In the interim measurement, parents were also asked whether they were familiar with the directive to eat two portions of fruit and 200 grammes of vegetables per day, and whether they met that directive. Almost all parents were familiar with the directive to eat 'two pieces of fruit and 200 grammes of vegetables a day'. One-third said they did not themselves meet the directive. Of those parents who did not meet the directive, their children also received less fruit than children whose parents claimed to meet the directive (an average of 0.9 portion compared with 1.5).

4.5 Consumption slightly higher, according to parents
A substantial majority — 71% — thought their child should eat 150 grammes or more of vegetables a day. This is more than in the baseline measurement, when 63% stated this.

Besides this, participants were also specifically asked whether they thought it was necessary for the child to eat vegetables on a daily basis. 81% of parents stated that they did think this was necessary, while 17% said it was not. It would appear from this that slightly more parents are now aware that children need a daily portion of vegetables than were before the scheme. Only 15% of children whose parents found it unnecessary did eat vegetables every day. Even so, this is an increase from the baseline measurement, when only 4% of that group of parents reported the same.

The majority of parents said their child ate fewer than two portions of fruit per day. 28% of children ate two portions of fruit or more on a daily basis: this is slightly higher than during the baseline measurement. More than three-quarters of parents said their child had a fixed fruit moment during the day. This was mainly in the afternoon after school, or during breaks at school. There are also other eating occasions, such as right after dinner or at lunch.

4.6 Majority of parents want a continuation of School Fruit
Three-quarters of parents would like the School Fruit scheme to be continued by their school. For parents who would like the scheme to continue, packing fruit/vegetables themselves for school would be the most appropriate option, since 43% of parents preferred this and most other parents had no preference. Only 8% would prefer a fruit subscription through the school.

Almost half of parents who wanted the School Fruit programme to continue preferred a daily fruit day. More than one-third of parents preferred for the school to implement a fruit day three or four days a week.
Parents would rather pack fruit or vegetables themselves for their children than take out a fruit subscription, because it is cheaper and gives parents an overview of the type and quality of the fruit being eaten at school. One parent remarked that it would be good to get the parents more involved with School Fruit.
5 Process evaluation among schools

5.1 Great enthusiasm among schools for the EU School Fruit Scheme
All schools were very positive about the EU School Fruit Scheme (99%). The children were also said to be very enthusiastic about getting fruit and vegetables at school. Most of the parents were also excited according to the schools, though they do have less insight into it. The School Fruit Scheme has had a real effect according to the schools, since 31% of the schools stated that, because of the School Fruit Scheme, children often brought fruit and vegetables to school on non Fruit Days, too.

This becomes evident from the process evaluation among the schools that participated in the School Fruit Scheme in the period January to March 2011. Of the 703 schools that participated in the School Fruit Scheme, 456 schools completed the questionnaire. This is a good response of 65%.

Almost a third wanted to continue the School Fruit Scheme
31% of the schools said they would continue themselves after the Scheme was over, an equally large group did not know yet. The continuation will primarily be done through children bringing their own fruit to school. For a majority, this will entail one or two fruit days per week.

The main reason for schools not to continue with the School Fruit Scheme is the costs it entails. Some schools said they would like to continue the scheme, but that both the school and the parents had no financial resources. Several schools therefore asked whether they could participate in the EU School Fruit Scheme again. When asked what support they needed, they stated that they needed help with funding. A second major reason mentioned is that it is the responsibility of parents to give the children enough fruit and vegetables and to make them aware of the importance thereof.

5.2 The Internet is a good medium for raising awareness of the EU School Fruit Scheme
Information on the Internet has ensured that most schools have been in contact with the EU School Fruit Scheme. 39% of the schools stated that they came into contact with the EU School Fruit Scheme through this medium. Following this is Steunpunt Smaaklessen & SchoolGruiten (mentioned by over one-quarter). A few other methods are also mentioned, yet all clearly less than the Internet and Steunpunt Smaaklessen & SchoolGruiten.

By far the most important information channel for schools to inform parents and children was the school newsletter. No less than 91% of schools stated that they used this method to inform parents and children. The parent brochure was mentioned by 16%. In third place with 9% is an e-mail specifically about the school fruit scheme.

5.3 Good provision of information about School Fruit
The information provided by Steunpunt was appreciated. Of the posters, the EU School Fruit posters were the most used (91%), but the majority also put up the “Did you Know” poster. A little over half of the schools used the teaching materials. On average, this package was evaluated with a 7.5. Finally, schools also found the leaflet to be clear and the majority visited the website. The majority of schools had no need for further support.
5.4 **Own initiatives**

Two thirds of schools reported that they already had a policy (in various ways) in the area of nutrition prior to the EU School Fruit Scheme. Almost all schools informed parents (in addition to any other resources) of the scheme through the school newsletter. The schools also launched various initiatives to focus on eating fruit and vegetables during the scheme as well. Here too, the newsletter played an important role. One fifth of schools had not set up their own initiative.

5.5 **Mainly delivered fruit, with reasonable variation, varied quality**

Generally, schools had much more fruit than vegetables delivered. The most frequently mentioned distribution was 80% fruit and 20% vegetables.

The most supplied types of fruit were: apple (mentioned by 97%), kiwi (80%), banana (79%), mandarin (75%) and pear (68%). The carrot (55%), cucumber (53%) and tomato (40%) were the most commonly supplied vegetables. Generally, participants were reasonably satisfied with the variation in fruit. Vegetable variation scored lower, 60% felt that there was little variation in the vegetables.

The schools found the quality of the vegetables to be good, while the quality of the fruit was considered to be fairly good to good. The fruit quality was mostly varied per supplier.

Sometimes there were children who did not like the fruit or vegetables. Mostly mentioned here were the kiwi and the tomato. However, something mentioned a number of times throughout the questionnaire was the fact that the scheme had led to children discovering that they do like fruit/vegetables (after all).

**Thursday most important fruit day**

The fruit and vegetables were mainly delivered at the beginning of the week and usually for three days (89%). The majority had storage capabilities, but 11% did not. A few noted that it was an advantage that this scheme did not take place during the summer, due to a lack of refrigeration.

Thursday turned out to be the day on which school fruit was eaten at most schools; over three-quarters named this day. Wednesday was the second most frequently named day. With 38%, Monday was the least named, this possibly has something to do with the fact that the fruit was generally delivered by suppliers on Monday and Tuesday.

Morning was the favourite time for school fruit at schools. 72% of schools said fruit was generally consumed in the morning and a further 10% said it usually happened during the morning break (in the playground).
6 Conclusions and Recommendations

6.1 Success factors for the EU School Fruit Scheme in the Netherlands

1. The first success factor is the fact that the scheme is free for the schools. Primary schools in the Netherlands have limited budgets for extras at school and no budgets for feeding infants. Because school fruit is offered free of charge, the threshold to get involved is low. This is reflected in the fact that 63% of schools in the Netherlands have already participated in the scheme during the period 2009-2012.

2. The organisation for implementing the EU School Fruit Scheme is well established by the Horticultural Product Board, in collaboration with Steunpunt Schoolgruiten. The delivery of the school fruit is carried out by recognised suppliers who take care of the (pre) financing of the produce. School fruit is delivered on a fixed day of the week and the schools know in advance what different types they are getting (three different products per week).

3. Because the suppliers are also the sponsors, they ensure that delivery is carried out properly and that the quality of the produce is good. 85% of schools were satisfied with the quality of the fruit and vegetables, while this varied at the other schools. Product quality is crucial to the EU School Fruit Scheme. To begin with, the school fruit is tasty for the children and it is also healthy and educational. The suppliers have an interest in quality because they will be keen to offer follow-up subscriptions to the children at the school, upon completion of the EU School Fruit Scheme.

4. Monitoring the quality of the delivered produce is important. A clear and rapid complaints process has been developed for in the event the products do not comply with this. Schools are told who their supplier is, and who they can contact directly if there are complaints about the delivery, through the digital newsletter. If they cannot find a solution, the school can contact Steunpunt Schoolgruiten or the Horticultural Product Board. Obviously suppliers are informed in the event shortcomings in the quality of the product are found.

5. Audits of school fruit in schools and suppliers is important to gain insight into the delivered product and put pressure on suppliers to focus on this. For this purpose, an evaluation process takes place at schools during each delivery period. Once every three years, a baseline and interim measurement is conducted among children and parents.

6. Teaching materials are specially developed for the EU School Fruit Scheme and tailored to different year groups. Use may also be made of teaching materials developed by Schoolgruiten, which includes many facts and assignments. The teaching materials are accessible for schools and children.

7. Through a weekly digital School Fruit Newsletter, schools are informed quickly and efficiently about which products are delivered each week, and also includes interesting information about the products. In addition, current developments with regard to fruit and vegetables and a healthy lifestyle are also communicated through the newsletter.

6.2 School Fruit areas for improvement

Although the EU School Fruit Scheme in the Netherlands is regarded as successful by children, parents and schools, a number of areas for improvement can also be pointed out. Work is already underway on a number of areas for improvement, while other areas will be addressed over the next school year.
**Longer duration for EU School Fruit**
The effect of the EU School Fruit Scheme may be increased by setting a longer duration for school fruit. The current ten weeks is too short and it is advisable to introduce School Fruit for an entire school year. One reason for this is that the schools and children have only just become ‘accustomed’ to School Fruit after 10 weeks, after which the project ends. It is thus insufficiently structurally embedded in the school’s routines. For real behavioural change, a longer period of School Fruit for the children and a structural continuation of School Fruit in the policy of the school will be vital. Furthermore, the distribution of ten weeks of School Fruit cannot be planned efficiently and sustainably.

It will be introduced in the Netherlands in 2012-2013. School Fruit will then be delivered free of charge for a period of 20 weeks (two/three portions per week) and schools will commit to a School Fruit policy for the rest of the school year.

**Opening of the schools scheme**
Even schools that have already received EU School Fruit would be permitted to participate in the scheme again. There is also much demand for this from schools. It will be introduced in the Netherlands in the 2012-2013 school year.

**Limited number of School Fruit suppliers**
For the sake of efficiency and monitoring, it is advisable to collaborate with a limited number of suppliers, which can distribute to schools nationwide. There were also many small School Fruit suppliers in the first year, which was not efficient. Owing to the need for sponsorship and the requirement prescribed of national coverage for delivery, the number of suppliers decreased from approximately 55 to four suppliers in the 2011-2012 school year. Although anyone may join the scheme, a limited number of suppliers provides an as effective and efficient implementation of the scheme as possible.

**Ancillary policy**
Teaching materials should be available online. Because the digital newsletter points out teaching materials to schools on a weekly basis, things are clear to the schools and there is an incentive for them to get started.

Promotional support for the schools and children is desirable, to call attention to School Fruit and to make things fun for the children. These could be a range of tools, such as a colouring contest, Frisbee, caps, children’s cooking workshops, etc. The funding for these campaigns is becoming increasingly worrisome because government funding continues to shrink.

Supporting resources to eat or cut the School Fruit into small pieces are desirable. These should be available for each year group and would include such tools as an apple peeler, paring knife, cutting board, spoons for kiwis, etc. A large number of suppliers indeed offer this.

Structural embedding of fruit policy requires significant support. It is not a given that schools will adopt a structural school fruit policy after a temporary boost of free fruit and vegetables at school. Support is frequently needed on this.

**Products**
The proportion of vegetables in School Fruit could be increased from 10% to 15-20%, as more snack vegetables are becoming available. Eating vegetables as snacks is a good way to increase the consumption of vegetables. The only place this does not succeed is in achieving a higher intake of vegetables with hot meals.
7 APPENDICES

- Baseline measurement of the EU School Fruit Scheme among children and parents, September 2011 (Dutch report)

- Process evaluation for the EU School Fruit Scheme in participating schools (Jan - March 2011), September 2011 (Dutch report)

Available upon request:

- Horticultural Product Board circular for the School Fruit Scheme 2010-2011

- Conditions for schools participating in the EU School Fruit Scheme

- Recognition of suppliers in the EU School Fruit Scheme