

Welcome to your free download from Seafish and the Seafood Training Academy.

Before you get started on your document, please take a few seconds to read this first page to find out what other free resources are available from the Seafood Training Academy and Seafish.

Seafish are about to publish/have published a brand new Guide to Seafood. For some time after its launch, the new seafood guide will only be available as a high quality printed publication from Seafish in Grimsby or Edinburgh. Watch out for news on the launch later this year (2013) to find out how you can purchase your copy.

Qualifications in fish and shellfish

There are new qualifications for managers, supervisors and others in all forms of fish and shellfish businesses, from shellfish companies through to fish and chip shops.

To find out more start here with these information [leaflets](#).

Free videos, free learner workbooks and resources.

These are the kinds of support that Seafish and the Seafood Training Academy will make available to help apprentices and others get the best out of the new fish and shellfish qualifications.

To access 100+ free fish and shellfish video programmes produced by Seafish – look at Seafish’s youtube channel – [seafishtheauthority](#).

The Seafood Training Academy online Library is the place to go for downloads of documents, Library guides, study guides etc.

Have a cruise around the [Seafood Academy](#) site – you’ll be surprised at what you can find there, and it’s all free.

Thank you for taking the time to read this, and I hope you enjoy the rest of your Seafood Guide.

Lee Cooper
Seafish and the Seafood Training Academy.

Segment Three - Potatoes For Chipping

INTRODUCTION

Potatoes are a very important part of a fish frier's life. It is vital that your chips are of a high quality and that you avoid selling a greasy product. There's nothing worse than soggy chips for spoiling your reputation and therefore your trade.



AIMS OF THE SEGMENT

By the time you've worked through this section you'll be able to:

- List some varieties of potato;
- State what affects the chipping quality of potatoes;
- List other factors in buying such as:
 - disease,
 - conditions,
 - age,
 - sampling
- State the effect of potato wastage on your profits;
- State how such wastage can be limited;
- Identify the correct methods of storing potatoes;
- Outline the stages in the preparation of potatoes for chipping;

- State the effect of a high sugar content on frying chips;
- Explain the difference between par fries/chilled chips and chips prepared from raw potatoes;
- State the importance of portion size and appearance.

WHICH POTATO TO CHOOSE

There is no variety of potato which can be said to give a consistently high chipping quality. There are many varieties that you can use and amongst them are:

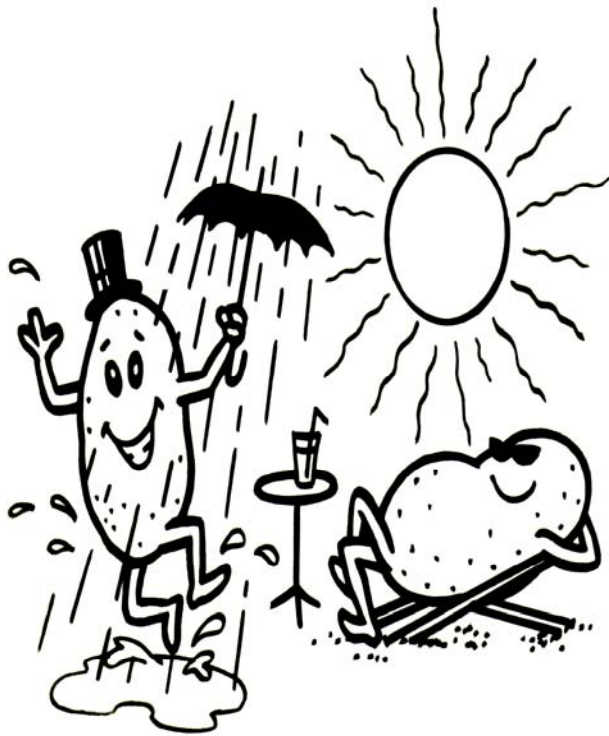
- Maris Piper;
- Desiree;
- Pentland Crown;
- Cara;
- Romaro;
- Edward.

All of these can be used for making chips but whether or not they will be consistently good depends on several things.

What affects the Chipping Quality?

Soil and Weather

The condition of a potato when it reaches your shop will be brought about by the soil and weather conditions under which it was grown. The same potato grown in different soil or in a different part of the country will be a different quality potato.



Condition

The physical condition of the potato is important because it can cost you money. Badly damaged potatoes will lose more weight than 'perfect' potatoes. This applies also to:

- Oddly shaped ones;
- Potatoes which have started to sprout because of poor storage;
- Diseased potatoes affected by blight. (Such potatoes will be mottled brown on the outside and marbled grey on the inside.) They lose more weight because they get left in the peeler (rumbler) longer and more of the flesh disappears with the imperfections.



Age

The age of the potato is important for the length of time it will take to peel it. When potatoes are newly harvested, their skins are thin and easily removed. As they age, the peeling time increases. The time increases also because of the lower water content of older potatoes that are more 'rubbery' than newly harvested ones.

Sampling

This is by far the best way to choose your potatoes. Ask your merchant for a sample. The British Potato Merchants/Growers Association (BPMA) have initiated a British Quality Chip Charter supported by the British Potato Council (BPC) and the National Federation Of Fish Friers (NFFF). This lays down a minimum standard for chipping potatoes. A copy of this standard³ can be obtained by contacting the BPMA, the BPC or the NFFF.

The bag of potatoes must be marked with:

- The name of the grower;
- Their number;
- Variety of potatoes;
- The weight of the contents.

You should also check that the weight is on the invoice.

Now you've got your sample, what should you look for?

The most important thing is the quality of the chip at the end of the frying process. That's going to have an important effect on your business.

The second most important thing is the yield. How much wastage is there?

WASTAGE

Knowing about wastage in potatoes is very important for your business. You will not be able to predict the yield of a bag of potatoes precisely but you should always know roughly what you'll get from it. Wastage of potatoes will be caused by:

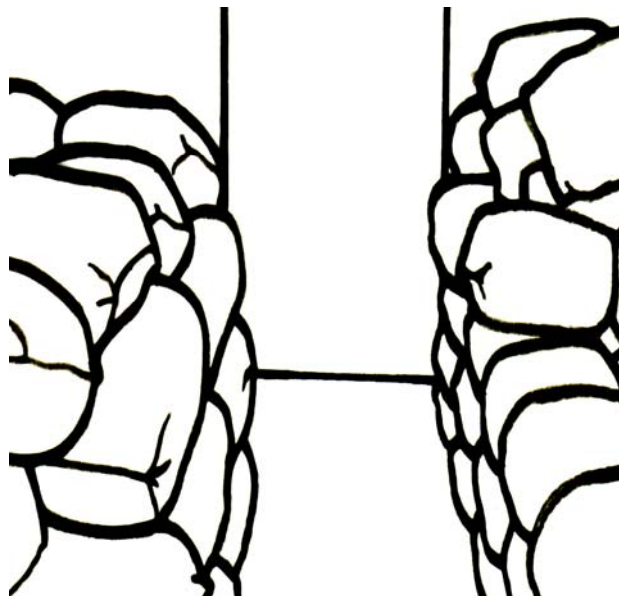
- Incorrect peeling times (these would usually be more than 1½ minutes depending upon the quality of potatoes used);
- Incorrect grade of carborundum;
- Overloading the 'rumbler';
- Buying poor quality potatoes.

You must work out the correct grade of carborundum otherwise you'll lose flesh and peel. This also applies if you overload the machine. If you are going to leave potato peeling to someone else, do make sure that they know all about correct peeling. It is important that you convert as much potato as possible into chips. If you don't, your profits will fall and the Inland Revenue will take your potato purchases and expect a higher income than you get. This could cause problems in assessing your tax.

³ See appendix.

HOW TO STORE POTATOES

- Potatoes must be stored on pallets in a dry place at between 7°C (45°F) to 10°C (50°F). Damp potatoes will sprout or go mouldy;
- Potatoes must be stored away from the walls, no higher than six bags high in a cool and dark environment;
- As with wet fish, potatoes don't have a use by date on their packaging. So it is good practice to write on the packaging the date that they were delivered. These potatoes must then be placed beneath any existing bags. This will ensure that your oldest potatoes are used first and will also reduce the chances of your stock becoming substandard. Remember that potatoes that are substandard will impact on your profits, as you will have to dispose of these potatoes.



Correct storage of potatoes is easier if you don't buy too many at one go. Buying in bulk is not necessarily economical if you're going to lose some of the stock. Also, if there's any disease, you'll find it will spread through the whole supply.

PREPARING POTATOES

The following are the important steps in the preparation of potatoes for chipping:

- Cleaning;
- Peeling;
- 'De-blemishing';
- Storage after peeling;
- Potato preparations.

You must not prepare too many potatoes for chips in advance as their condition will deteriorate. After cleaning, peeling and 'de-blemishing', you should rinse your potatoes in water. The reason for this is to remove excess starch. This should not be for too long otherwise they will develop a tough skin and give you a poorer product. It will also put more water into the pan and spoil your fat.

Since you are trying to provide dry chips for your customers, it is a good idea to use a potato preparation that you add to cold water. The chips should be soaked (some friers prefer to soak the potatoes) for 15 minutes and allowed to dry for an hour before cooking. This leaves the chips or potatoes in a dry condition, protecting your fat, and the chips absorb less fat. The preparation is dispelled in cooking, so there is no taste attached to the food.



The manufacturers of the preparation give advice on its use and storage times.

SUGAR CONTENT OF CHIPPING GRADE POTATOES

To produce even coloured chips it is necessary to ensure that potatoes contain no more than 0.25% sugar.

When a potato becomes chilled in cold weather through either being stored at very low temperature, on a cold floor or in a draught, the potato undergoes a change that converts some of its starch to sugar to provide energy to combat the cold.

Potatoes affected this way, when chipped and fried will turn dark brown in colour. This is called caramelisation. The resulting chips will also taste sweet and will soon become soggy.

Potatoes delivered in very cold weather should be tested for sugar content before being accepted.

Use a sugar testing kit available from some sundries merchants, or you can use Diastix, which are diabetic reagent sticks available from the chemists.

Cut a small potato in half; hold the stick between the closed halves of the potato for 30 seconds. Compare the resulting colour change with the chart on the side of the tube. This will indicate the severity of any sugar level increase.

Potatoes with a high level of sugar can be treated with Drywite Starch Doctor or, after washing out excess starch from the chips, place them in a tub and cover them with very hot water and allow to cool. This will leach out the sugar.

PAR FRIES/CHILLED CHIPS

Some businesses may decide to use par-fried chips rather than prepare chips from the raw potato. Par fries are chips that have been partially fried to prevent discolouration, drained, then vacuum-packed.

When this is the preferred option it is important that correct storage is observed. When these chips are delivered they must be placed in a fridge or chiller and kept at a temperature of about 2°C (36°F) to 4°C (39°F). It is advised that they be used within 3 to 5 days. For further details on storage and frying, you should follow the manufacturer's guidelines on the packaging.

How many chips should I give?

It is a good idea to sample portions of chips in your area to see what is normal. Once you have decided on a portion size, **be consistent**. The portion of chips should look generous and look attractive. As previously stated, chips are an important factor in your business. Don't let them spoil your trade because they're greasy, tough or lacking in quantity.

EXERCISES

Describe below using brief notes, the conditions in which your potatoes are stored.

How would you measure the sugar content of your potatoes?

Check the sugar content of your potatoes and record your findings below.

Candidate's signature and date

You have now completed segment three.

You may feel like taking a break before considering the next segment.