Thank you for downloading a pdf document from the seafood Training Academy

Things you may wish to know about?

Apprenticeships and fish & shellfish industry skills qualifications
This new family of fish and shellfish industry skills qualifications are available at Levels 2 and 3 and as intermediate and advanced apprenticeships. Whether you are a manager, supervisor, team leader or operative there is a mix of processing, fishmongering and fish frying units to choose from.

To find out more start here with the apprenticeship 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 on the Academy site, in the Library.

The Library is also the place to go for downloads of documents etc.

Have a cruise around the Seafood Academy site – you'll be surprised at what you can find there.

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

Lee Cooper
Seafish and the Seafood Training Academy.

Fish Smoking

Fish Smoking
An Open Learning Module for the Seafish Open Learning Project.

This work was produced under an Open Tech contract with the Manpower Services Commission. The views expressed are those of the author and do not necessarily reflect those of the MSC or any Government Department

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SEGMENT FIVE - SMOKING KILNS

SEGMENT SIX - PRODUCT HANDLING AND PACKAGING

Authorship

This module has been compiled and authenticated by the Training Division of the Sea Fish Industry Authority.

Special acknowledgement is given to the following:

Torry Research Station, particularly for the information on the preparation and processing of the individual species.

Afos Ltd, in particular for the information on automatic kilns and briners.

Bill Horner of the Humberside College of Higher Education who provided original material some of which has been adapted for inclusion in the module.

A Guide for Open Learners

This will help to explain what open learning is all about. It will help you to make the best use of your open learning module.

WHAT'S SO GOOD ABOUT OPEN LEARNING?

Open learning gives you freedom to choose.
You study:-

- What you like;
- Where you like;
- When you like;
- At a pace to suit you.

You can pick the subjects you want. You don't have to be in a certain classroom at a certain time. You won't be bored because the teaching is too slow, or lost because it's too fast.

You seldom need any qualifications before you are allowed to study.

All this freedom lets you fit your studying into your daily routine.

The best thing about it for most people is that they can study without taking valuable time off work.

Modules are written in a way that allows you to study without help. However, it is expected that you will need assistance from time to time, this can normally be provided.

THINGS YOU SHOULD KNOW ABOUT YOUR MODULES

What is a module?
A module is the name we have given to a study package. It will have a printed text. In a few of them there will be audio or video tapes as well.

Each module will be divided into segments. You could think of each segment as a lesson.

Before you begin
Each module will have a short introduction. You will be given a list of things you will need. For some modules, special equipment will be needed. We can supply most of this. This section will also tell you if you need any knowledge or experience before you begin. Check that you have everything you need.

Objectives
Modules are based on objectives which tell you what you will be able to do when you have finished. These are clearly stated. You should check that the module objectives match your own reasons for studying. You will be told when you have achieved each one of the objectives. In this way you can easily keep track of your own progress.

S.A.Q.'s
This is short for **self assessment questions**. These questions are carefully designed to help you. They let you know how you are getting on. They help you to find out any problems that you may be having with the material and help you to put them right.

Don't be tempted to skip these questions. Don't look at the answers before you try them! You will only be cheating yourself.

Where you are expected to write an answer, a space will be left in the text. Remember the module is your learning tool, not a textbook, so go ahead and write on it. **Don't** try to keep an answer in your head until you have checked it. **Always write down your answer first.** Writing the full answer down is very important, it makes you really think about what you are doing. The wide margins are also there for you to make notes in.

You will notice that the numbers given to the S.A.Q.'s are out of order. We did this on purpose. This is to stop you from accidentally seeing the answer to the second S.A.Q. when you are looking at the response to the first. The responses to the S.A.Q.'s are at the back printed on yellow paper. They are in the correct number order. I have called them responses because they are usually more than just answers. It is a good idea to read the whole response every time. It usually helps to know about common mistakes even though you got the right answer.

S.A.Q.'s are shown by a box with a question mark and the number of the question.

ⓘ **SAQ1**

Important information
Other boxes are used to show different types of information. This box with the ⓘ in the top left corner contains important information.

ⓘ

Warnings
This box with the warning sign gives information about possible dangers, health hazards, etc.

⚠

Definitions
A box with smaller print is used for definitions and extracts from documents.

smaller print

Other emphasis
Shading like this is used to pick out important sentences and paragraphs.

Bold type is used to make **important words** or **numbers** stand out.

HELP IF YOU GET STUCK

At the time of obtaining your module you will be told of any support which can be arranged.

This might be through one of the following:

- Telephone
- Face to face meeting
- Letter
- Tutor marked assignment

Questionnaire

Some modules will be accompanied by questionnaires. The questionnaire is your chance to help us. Your answers are our way of finding out if any changes are needed. If there is one, please remember to fill it in and return it.

HINTS ON STUDYING

When?

Try to get into a regular study routine. Set aside times for study but be ready to give and take a bit. Miss one of your planned sessions if you must, but try to make it up later.

Set yourself realistic targets such as 'I will finish segments one and two by this weekend' and **stick to them!**

Grab the chance to study at odd moments. You'll be amazed how much you can learn in fifteen minutes. It's difficult for the average person to really concentrate for more than 20 minutes at a time anyway. A word of warning – don't think you can learn anywhere. You need to be able to concentrate, there are often distractions which prevent this.

- Time spent just **reading** a module is not the same as time spent **learning**.

- You must become involved, the best learning happens when you're active, e.g. answering questions and making notes.

- Don't study too long without a break.

This module will remind you of suitable places to stop for a while, but if you need a break earlier, take one. It's entirely up to you.

Where?
Try to find somewhere where you will not be distracted. Almost anywhere will do. It all depends on how you are placed at home and at work. Don't forget your local library. Fishermen might find their local mission is able to help, especially with video equipment.

The secret is, **be flexible**. If the kids are having a party, go to Auntie's. If she's not in, go to the library. All you need is somewhere where you can get on with it and not be disturbed.

Carry your module with you when you can. Try to find gaps in your normal routine when you could do some useful work.

Now that you've decided to have a go, **stick with it!** Don't give up. Most people find studying hard at times, this is quite natural. It is also quite natural to need help with parts that you find especially difficult. I'm sure you'll find it worthwhile.

Introduction

This module covers the basic principles of fish smoking. It is a useful guide for those who are either working in fish smoking premises or who are considering entering the industry.

The module emphasises smoking for presentation rather than for preservation. Nevertheless the first two segments deal with fish spoilage and the preserving properties of smoke.

The bulk of the module is devoted to the choice of raw material, its preparation, processing and packing.

It deals with the preparation of the more popular fish species and the smoked products obtained from them.

There is also a segment on types of kilns and fire boxes in use in the UK industry.

PRE-ENTRY REQUIREMENTS

No previous knowledge is assumed although experience gained from working in the industry is an advantage.

EQUIPMENT REQUIRED

No special equipment is required. You will need a pen or pencil to complete the Self Assessment Questions which can be answered in the spaces provided.

Objectives

When you have completed this module you should be able to:

1. State the main causes of fish spoilage.

2. Describe how smoking fish helps to reduce spoilage.

3. Explain the need to choose and correctly prepare, good quality raw material for smoking.

4. Describe salting, brining and hot and cold smoking processes and relate these to individual fish species.

5. State the basic principles of fish smoking kilns including the production of smoke.

6. Explain the sources of spoilage of smoked products and state the advantages of modern packaging methods.