

**City & Guilds Level 4 Award,  
Certificate and Diploma in  
Work-based  
Agricultural Management  
(0097)**



**Qualification handbook and  
assessor guidance**

[www.cityandguilds.com](http://www.cityandguilds.com)

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## About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

## City & Guilds Group

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Publications are available from [www.cityandguilds.com](http://www.cityandguilds.com) under the 'Qualifications' tab and then click on 'Land-based industries'.

Version and date	Change detail	Section
V2.0 October 2017	Units 526, 538 and 539 added.	Unit details and Units
	Rule of combination amended to include units 526, 538 and 539.	Rules of combination
	Amended a few Assessment criteria for the new units 526, 538 and 539 and included their Unit aim.	Units
V2.1 August 2018	Updated Data protection legislation, removing reference to specific date of legislation.	Throughout
V2.2 March 2022	TQT and GLH amended and clarified	Introduction
V2.3 Nov. 2022	GLH for Level 4 Diploma in Work-based Agricultural Business Management updated	Introduction

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## City & Guilds Level 4 Award, Certificate and Diploma in Work-based Agricultural Management (0097)

This document contains the information that centres need to offer the following qualifications:

Qualification title(s) and level(s)	City & Guilds qualification number(s)	Ofqual accreditation number(s)	Guided Learning Hours (GLH)	Total Qualification Time (TQT)
Level 4 Certificate in Work-based Agricultural Management (Livestock)	0097-41	600/2788/5	18	200
Level 4 Certificate in Work-based Agricultural Management (Crop Production)	0097-43	600/2788/5	18	200
Level 4 Diploma in Work-based Agricultural Business Management	0097-44	600/2842/7	160	820
Level 4 Diploma in Work-based Agricultural Business Management (unit route)	0097-94	600/2842/7	160	820

Please note that this qualification handbook and assessor guidance details the information for all the routes within this qualification. The following routes are available:

- 0097-41 Level 4 Certificate in Work-based Agricultural Management (Livestock)
- 0097-43 Level 4 Certificate in Work-based Agricultural (Crop Production)
- 0097-44 Level 4 Diploma in Work-based Agricultural Business Management
- 0097-94 Level 4 Diploma in Work-based Agricultural Business Management – unit route

The minimum credits for the Award, Certificate and Diploma are as follow:

Certificate (Livestock): 20 credits

Certificate (Crop production): 22 credits

Diploma: 82 credits

## The Qualifications

The City & Guilds Level 4 Award, Certificate and Diploma in Work-Based Agricultural Management (0097-41 to 44 and -94) are programmes of workplace training and assessment leading to nationally recognised qualifications. They aim to:

- meet the needs of learners who work or want to work in the agriculture sector
- allow learners to learn, develop and practise the skills required for employment and/or career progression in the agriculture sector
- replace the following qualifications:  
Level 4 NVQ in Agricultural Management (0133-41 to -44, -91 to -94) which expired on 31/12/2011. (QAN 500/1221/6)

### **City & Guilds Level 4 Certificate in Work-based Agricultural Management (0097-41, -43)**

The aim of this qualification is to provide a work-related, competence-based qualification. It reflects the skills and knowledge needed to do a job effectively, and shows that a learner is competent in the area of work the qualification represents. The different routes available within this qualification are Livestock and Crop Production.

### **City & Guilds Level 4 Diploma in Work-based Agricultural Business Management (0097-44, -94)**

It is a work-related, competence-based qualification. It reflects the skills and knowledge needed to do a job effectively, and shows that a learner is competent in the area of work the qualification represents.

## Publications and resources

City & Guilds provides the following publications and resources specifically for this qualification.

To access these documents, go to the City & Guilds website **[www.cityandguilds.com](http://www.cityandguilds.com)**. Click on 'Qualifications' and then click on 'Land-based industries'.

Description	How to access
Qualification handbook and assessor guidance This provides the structures of the qualifications and guidance for assessors on the evidence requirements for each unit.	<b><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></b>
Learner guide and logbook This provides guidance for learners and evidence summary sheets for the units within the qualification. It is expected that centres will use these forms. If centres devise or customise alternative forms, including paper-based or electronic methods, they must be approved by the external verifier before they are used by learners and assessors at the centre.	<b><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></b>
Portfolio builder pack for learners and assessors	<b><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></b>

This has a series of recording forms that may be helpful for centres and learners to use. The forms are generic and may be used for any City & Guilds Land Based work-based qualification.	
Information guide for centres	<b><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></b>
Product briefing sheet	<b><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></b>



## City & Guilds Level 4 Award, Certificate and Diploma in Work-based Agricultural Management

**0097- 40 to 44 and -94**

### Unit details

All units available in the different qualification routes are listed below. The rules of combination for each route within the qualification are detailed separately. Please refer to this carefully to ensure that the correct units are delivered for the chosen routes.

City & Guilds Unit Number	Unit title	UAN	Unit level	Credits
401	Develop and implement plans for the storage, utilisation and disposal of organic by-products	L/503/4316	4	12
402	Develop and implement plans for the storage and disposal of inorganic waste	K/503/4324	4	10
403	Plan and monitor the movement of animals	A/503/4330	4	10
404	Manage grassland and forage crops for livestock production systems	J/503/4330	4	12
405	Plan and manage forage conservation and storage	L/503/4333	4	12
406	Produce, monitor and manage forage plans including grazing	R/503/4334	4	12
407	Plan, monitor and evaluate the nutrition of production ruminants	Y/503/4335	4	12
408	Farm environmental planning, management and monitoring	H/503/4337	4	15
409	Plan , manage and monitor the operation and performance of the enterprise	M/503/4339	4	15
410	Plan, manage and evaluate breeding programmes	M/503/4342	4	12
411	Plan and manage the health and welfare of livestock	M/503/4373	4	12

412	Plan and maintain the provision of livestock replacements	M/503/4356	4	12
413	Plan, manage and evaluate site hygiene and biosecurity	A/503/4358	4	12
414	Plan, monitor and evaluate the nutrition of mono-gastrics	F/503/4362	4	12
415	Plant nutrients and fertiliser planning	R/503/4365	4	12
416	Plan, monitor and evaluate the management of crops	H/503/4368	4	15
417	Plan and manage the harvesting, transportation and storage of crops	K/503/4369	4	12
418	Plan and manage the control of weeds, pests and diseases	D/503/4370	4	12
419	Manage the transportation of animals	H/503/4371	4	12
420	Manage Emergencies and Incidents in the Land-Based Sector	Y/503/1595	4	15
421	Develop, negotiate and agree proposals to offer land based services and products	K/503/4372	4	14
422	Commission, monitor and evaluate contract work for the land-based sector	M/503/4287	4	12
423	Develop and review a Marketing Policy	R/503/1594	4	15
424	Manage information, knowledge and communications within the land based sector	T/503/4388	4	15
425	Plan and manage the development of those working in the land based sector	A/503/4389	4	15
426*	Manage own professional development in an organisation	L/600/9586	3	4

427	Contract Documentation and Management for Land-based Industries	T/503/4391	4	15
428	Prepare a plan for your business	J/500/4599	3	2
429	Produce a plan for your business	M/500/4600	3	1
430	Make changes to improve a business	J/601/4382	3	4
431	Estimate financial needs of your business	H/500/4593	3	3
432	Improve the Financial Performance of a Business	J/601/5791	3	4
433	Make a cash flow forecast	A/500/4597	3	2
434	Invest Capital in a Business	L/601/5792	3	2
435	Recruit staff in own area of responsibility	T/600/9663	5	4
436	Plan, allocate and monitor work in own area of responsibility	H/600/9674	4	4
437	Manage a budget for own area or activity of work	A/600/9695	5	7
438*	Manage physical resources	K/600/9711	4	3
439*	Make effective decisions	F/600/9715	3	3
440	Procure supplies	L/600/9734	3	2
526**	Manage own professional development within an organisation	A/615/8558	3	4
538**	Manage physical resources	T/615/8560	4	3
539**	Make effective decisions	K/615/8555	3	3

\* Learners registered before 1st July 2017 should use this unit.

\*\* Learners registered after 1st July 2017 should use this unit.

## Rules of combination for the City & Guilds Level 4 Award and Certificate in Work-based Agricultural Management and the City & Guilds Level 4 Diploma in Work-based Agricultural Business Management

**(0097)**

### Certificate

<b>0097-41 City &amp; Guilds Level 4 Certificate in Work-based Agricultural Management (Livestock)</b>	
Rules for achievement of qualification	Minimum of 20 credits from units 401-415, 419, 420

<b>0097- 43 City &amp; Guilds Level 4 Certificate in Work-based Agricultural Management (Crop Production)</b>	
Rules for achievement of qualification	Minimum of 22 credits from units 401, 402, 408, 409, 413, 415- 418, 420

### Diploma

<b>0097-44 City &amp; Guilds Level 4 Diploma in Work-based Agricultural Business Management</b>	
Rules for achievement of qualification	Minimum 82 credits required overall minimum of 68 credits from at least 6 units from (401 - 420) Plus minimum of 14 credits from at least 6 units from (421 – 425, 427-437, 440, 526, 538, 539)

<b>0097-94 City &amp; Guilds Level 4 Diploma in Work-based Agricultural Business Management - UNIT ROUTE</b>	
Rules for achievement of qualification	Minimum 82 credits required overall minimum of 68 credits from at least 6 units from (401 - 420) Plus minimum of 14 credits from at least 6 units from (421 – 425, 427-437, 440, 526, 538, 539)

## **Assessment for the Award, Certificate and Diploma**

The units will be assessed by the gathering of Work-based evidence into a portfolio. The authenticity, sufficiency and validity of the evidence will be judged by the assessor.

**The portfolio builder pack** is available on [www.cityandguilds.com](http://www.cityandguilds.com). It contains a series of pro-formae that may be helpful to learners/assessors in the compilation of portfolios.

Included in the pack are the following pro-formae:

- Centre contacts form
- Self assessment and personal action plan form
- Record of units achieved
- Witness status list
- Witness testimony form
- Assessment planning form
- Learners feedback sheet

Where witness testimony is used, the Witness Status List must be completed on one occasion by any witnesses used.

The record of units achieved must also be updated as the candidate completes each unit.

The use of the other forms is optional.

## **Assessment strategy**

The roles of assessors and internal verifiers/qualification co-ordinators are specified in *Providing City & Guilds Qualifications - a guide to centre and qualification approval*. Specific competencies required for this qualification are set out below.

Assessors should be occupationally competent, either qualified to level 3 or above in agriculture or have significant and current experience of working in the industry at this level. They should hold or be working towards A1 or D32/33.

Internal verifiers/qualification coordinators must be occupationally competent, either qualified to at least level 3 or have significant and current experience of working in the industry at this level. They should hold assessor qualifications, as above, and hold or be working towards V1 or D34.

## **Appeals and Equal opportunities**

Centres must have their own auditable, appeals procedure. If a learner is not satisfied with the examination conditions or a learner feels that the opportunity for examination is being denied, the Centre Manager should, in the first instance, address the problem. If, however, the problem cannot be resolved, City & Guilds will arbitrate and an external verifier may be approached to offer independent advice. All

appeals must be clearly documented by the Centre Manager and made available to the external verifier or City & Guilds if advice is required.

Should occasions arise when centres are not satisfied with any aspect of the external verification process, they should contact their City & Guilds local office.

Access to the qualification is open to all, irrespective of gender, race, creed, age or special needs. The Centre Manager should ensure that no learner is subjected to unfair discrimination on any grounds in relation to access to assessment and to the fairness of the assessment. QCA requires City & Guilds to monitor centres to check whether equal opportunities policies are being adhered to.

For learners with particular requirements, centres should refer to City & Guilds' policy document *Access to Assessment and Qualifications*, which is available from [www.cityandguilds.com](http://www.cityandguilds.com)

### **Centre and qualification approval**

New centres must apply for centre and qualification approval. Further information on this process is available on the City & Guilds website.

### **Centres already offering City & Guilds qualifications in this subject area**

Centres approved to offer the qualification Level 4 NVQ in Agricultural Management (0133- 41 to 44, 91 to 94) may apply for approval for the new Level 4 Award and Certificate in Work-based Agricultural Management and Level 4 Diploma in Work-based Agricultural Business Management using the **fast track approval form**, available from the City & Guilds website.

Centres may apply to offer the new qualification[s] using the fast track form

- providing there have been no changes to the way the qualifications are delivered, and
- if they meet all of the approval criteria specified in the fast track form guidance notes.

Fast track approval is available for 12 months from the launch of the qualification. After this time, the qualification is subject to the **standard** Qualification Approval Process. It is the centre's responsibility to check that fast track approval is still current at the time of application.

Existing City & Guilds centres will need to get specific qualification approval to run this qualification. They should contact their City & Guilds Local Office.

Full details of the process for both centre and qualification approval are given in 'Providing City & Guilds qualifications – a guide to centre and qualification approval' which is available from [www.cityandguilds.com](http://www.cityandguilds.com)

City & Guilds reserve the right to suspend an approved centre, or withdraw their approval from an approved centre to conduct a particular City & Guilds qualification, for reasons of debt, malpractice or for any reason that may be detrimental to the maintenance of authentic, reliable and valid qualifications or that may prejudice the name of City & Guilds.

## Registration and certification

- Learners must be registered at the beginning of their course. Centres should submit registrations using Walled Garden or Form S (Registration), under the appropriate qualification/complex.
- Certification modules must be submitted before certification can take place (See page 11 for details).
- Learners achieving the number and combination of assessment components required for the Award, Certificate and Diploma will, in addition, be issued an appropriate Certificate.

Full details on the procedures for these qualifications will be found in the City & Guilds On-line Catalogue. This is accessed through the Walled Garden.

## The units

As units are signed off as completed, the record of units achieved proforma should be updated

## How to use the Evidence Recording Sheets

There is a column alongside the assessment criteria. In this Qualification handbook this column is used for assessor guidance. In the Learners guide this column is used for recording the evidence. Records of direct observation may be written directly into this column or, if the evidence is on a separate document, the reference of where the evidence can be found should be entered here. If the evidence is cross reference to elsewhere in the Learner guide and logbook then the reference to where it may be found should be inserted. For underpinning knowledge criteria, the answers may be written in directly or completed on a separate page which can be referenced in the normal way.

Below is an example of how a recording sheet may look, with entries by the candidate, the supervisor and the assessor. Although several people may enter information here, it remains the responsibility of the assessor to judge the evidence presented is sufficient, authentic and valid.

## Example Unit

TITLE	Maintain and develop personal performance	Learner's name <b>Tom Goodboy</b>
UAN REFERENCE	F/502/1689	
LEVEL	2	
CREDIT VALUE	2	
<p>The aim of this unit is to provide the learner with the knowledge and skills to be able to agree and develop their own personal performance with an appropriate person.</p> <p>The learner will maintain and develop personal performance with regard to:</p> <p>(i) working to targets and completing specific tasks</p> <p>(ii) quality of work</p> <p>Evidence from a staff appraisal or review is appropriate, where targets are set and agreed.</p> <p>Relationship to National Occupational Standards : CU5.1</p>		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Maintain personal performance	1.1 Identify current competence and areas for development using relevant techniques and processes	Current competence was identified via self assessment and discussion at appraisal interview on 25 <sup>th</sup> June 2008. Identified that updating on current legislation and first aid training are required. See evidence ref 1
	1.2 Carry out work in accordance with responsibilities and organisational requirements	Tom is carrying out his duties to the high standard required by the company. He understands company policies and procedures for setting out work, the standard of work required and meeting targets agreed with customers. He arrives on site with required PPE and clean company uniform, giving a good impression of the company to customers. AB  25 <sup>th</sup> September 2008. Visited Tom on site at 36 High Street. He was fully aware of what the job entailed. His work site was tidy and the customer was very satisfied with the work accomplished so far. ANO



2. Develop personal performance	2.1	Agree personal performance and targets with an appropriate person	Personal targets set on 25 <sup>th</sup> June 2008. See evidence ref 1
	2.2	Review performance and progress regularly and use the outcome to plan future development activities	Performance is reviewed every 3 months. See update 30 <sup>th</sup> September 2008. Evidence ref 2
	2.3	Seek advice from an appropriate person if clarification is required concerning specific tasks	Tom asked about access to neighbouring land when working on the boundary at 46 Church Lane on 14 <sup>th</sup> July 2008. AB  Tom asked for clarification of the order of work at 25 Common Lane on 30 <sup>th</sup> August 2008 AB
	2.4	Seek constructive feedback and advice from others and use it to help maintain and improve performance	Feedback from June has been acted on. Tom has improved his timekeeping since his appraisal. He is working in a more methodical way since our discussion, so that his work area is tidier and safer for Tom and the customers. It also gives a better impression of the company.  Although Tom works well on his own initiative, Tom seeks feedback from me if ever he is unsure what is required of him. Alan Boss 20 <sup>th</sup> October 2008
3. Know how to develop personal performance	3.1	State own limits of responsibility in relation to specific tasks and activities	I have to arrive at the customer's address at the specified time and behave in a manner that gives a good impression to customers. I have to work tidily and steadily and do the jobs in the right order and do them how Joe and Alan have shown me. I have to avoid causing any unnecessary damage to the site and clear up any mess promptly. On longer jobs, I have to make sure I am not leaving hazards unguarded overnight.

	3.2 State who to obtain advice from in relation to specific tasks and activities	Straight forward tasks, I refer to my colleague Joe. More complex things to my supervisor Alan.
	3.3 List the correct procedures for obtaining advice	Initially I ask my colleague Joe, who has been here 5 years, then my supervisor Alan, if Joe can't help. If Alan cannot advise me he tells me where to find the advice or finds out the answer for me.
	3.4 State the risks involved in not obtaining advice where specific tasks and activities are unclear	Safety may be put at risk or the job might not be done how the company or customer wants it to be done
	3.5 Describe how to determine and agree development needs and personal targets	We do this formally at appraisal meeting and 3 monthly reviews. I fill in a self assessment form and then discuss this with Alan.
	3.6 State why personal performance should be reviewed	So that I can improve in my job and advance my career. So that the company has well trained staff that can meet customers' needs and expectations.

## Unit 401

TITLE	Develop and implement plans for the storage, utilisation and disposal of organic by-products	Learner's name
UAN REFERENCE	L/503/4316	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, manage, monitor and evaluate the storage, utilisation and disposal of organic by-products.		
Relationship to National Occupational Standards : AgM1		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan and manage the storage, utilisation and disposal of organic by products	1.1 Critically compare alternative management systems for the effective storage, utilisation and disposal	Relate to various types of organic manures. Consider implication to leaching/nutrient loss and environmental factors partic pollution and toxicity. Financial considerations: capital costs, running costs, cost benefit analysis. Suitability to farm and area e.g. topography, rainfall, winter stubbles, roads, smells. Availability of contractors
	1.2 Develop plans for the effective storage, utilisation and disposal	Relate to a specific farming situation. Assess types of product, quantities and storage facilities/capacities. Consider timing and method of utilisation. Identify management factors that minimize storage losses. Review availability of labour and machinery, also use of contractors. Decide most beneficial use. Relate plan to environmental standards
	1.3 Ensure that plans are in accordance with relevant legislation and codes of practice	Ensure working methods and storage facilities promote health and safety. Ensure compliance to environmental standards and specific stewardship schemes. Must comply with quality assurance standards and any "status" regulations e.g. Organic

## Unit 401

2. Be able to monitor and evaluate the effective storage, utilisation and disposal of organic by products	2.1 Justify the necessary recording and reporting arrangements	Identify requirements for compliance and to meet assurance schemes. Produce samples of appropriate paperwork. Evaluate the importance and the need for each. Evaluate the reporting and inspection processes including internal/external audit arrangements.
	2.2 Ensure working methods and practices are consistent with legislation and codes of practice	Undertake/embed risk assessment, implement necessary controls and action plans. Review regularly and update/amend. Ensure effective communication. Ensure compliance to environmental standards and new and emerging directives
	2.3 Monitor the storage, utilisation and disposal and implement remedial action where necessary	Embed regular inspection and review. Rapid identification of problems and rectification: physical, mechanical, environmental partic pollution. Monitor changing standards and new directives. Review new and emerging technology
	2.4 Critically evaluate the effectiveness of the storage, utilisation and disposal system being used	Ageing equipment and obsolescence. Review problems and accidents. Consider alternative systems and developments/upgrades. Cost considerations. Optimisation of the nutritional benefits, Damage to soil structure. Adequacy in relation to farm/enterprise size, i.e. post expansion. Compliance to environmental standards
3 Understand how to plan, monitor and evaluate the effective storage, utilisation and disposal of disposal of organic by products	3.1 Describe the types, composition and volumes of various organic by products	Produce a table to include assessment of types, compositional quality and volumes produced for a specific farm situation. Relate to enterprise mix and feeding regimes.
	3.2 Discuss the various methods of storage, utilisation and disposal and the necessary resources for each	Overview a range of different facilities/equipment. Select one option for a given situation and research in full including a detailed assessment of the resources required
	3.3 Explain the relevant legislation and codes of practice and associated recording arrangements	Research. Review regularly. Ensure up to date risk assessments are maintained. Understand the responsibility of an organization and associated implications for non compliance. Consider the need and importance for a health and safety policy. Review environmental standards. State the necessary recording arrangements and associated inspection/audit regimes



## Unit 402

TITLE	Develop and implement plans for the storage and disposal of inorganic waste	Learner's name
UAN REFERENCE	K/503/4324	
LEVEL	4	
CREDIT VALUE	10	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, manage, monitor and evaluate the storage and disposal of inorganic waste.		
Relationship to National Occupational Standards : AgM2		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1 Be able to plan and manage the storage and disposal of inorganic waste	1.1 Critically compare alternative waste management systems	For various types of inorganic waste. Review alternative storage and disposal systems. Consider toxicity factors and long term implications to the environment. Financial considerations: capital and revenue costs. Suitability to a farm and area e.g. soil types, water courses, public access.
	1.2 Develop plans for the effective storage and disposal	Relate to a specific farm. Assess types of inorganic waste and quantities: hazardous or non hazardous. Plan suitable handling, storage and disposal. Consult specialist advice. Consider cost factors .Relate to legislative and environmental standards. Evaluate availability of suitable off site facilities
	1.3 Ensure that plans are in accordance with relevant legislation and codes of practice	Ensure working methods and practices promote health and safety. Ensure compliance to environmental and stewardship schemes. Must comply with farm assurance standards and any farm designations/status options (e.g. LEAF)

2. Be able to monitor and evaluate the effective storage and disposal of inorganic waste	2.1 Justify the necessary recording and reporting arrangements	Identify requirements for compliance and to meet assurance schemes and designations. Produce samples of appropriate paperwork. Evaluate the importance and the need for each. Evaluate the reporting and inspection processes including internal/external audit arrangements
	2.2 Ensure working methods and practices are consistent with legislation and codes of practice	Undertake risk assessments, implement necessary controls and action plans. Review regularly and update/amend as appropriate. Ensure compliance to environmental standards and new and emerging directives.
	2.3 Describe appropriate monitoring arrangements and types of remedial action if problems are identified	Regular inspection and review. Describe possible problems and the remedial action that may be necessary. Include cost assessments for remedial work. Describe how and when to notify relevant authorities e.g. Environment Agency, if serious problems are developin
	2.4 Critically evaluate the effectiveness of the storage and disposal systems being used	Evaluate new and emerging technology and ideas and their appropriateness to a given farm situation. Consider alternative systems. Review cost factors. Consider adequacy of capacity relative to farm/enterprise size e.g. post expansion. Evaluate compliance to current legislation and standards
3. Understand how to plan, monitor and evaluate the storage and disposal of inorganic waste	3.1 Describe the specific types and properties of inorganic waste produced on farms and how these must be stored and disposed	Produce a table showing types, properties and volumes of inorganic waste products for a specific farm situation. Assess as hazardous or non hazardous. Describe how each should be stored and correctly disposed of
	3.2 Explain the relevant legislation and codes of practice and associated recording and reporting requirements	Research requirements. Review regularly. Ensure up to date assessments are maintained. Understand the responsibility of an organisation and associated implications for non compliance. Health and safety policy: need and importance. Consider environmental standards. State the necessary recording arrangements and associated inspection/audit regimes

## Unit 403

TITLE	Plan and monitor the movement of animals	Learner's name
UAN REFERENCE	A/503/4330	
LEVEL	4	
CREDIT VALUE	10	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, manage, monitor and implement the movement of animals.		
Relationship to National Occupational Standards : AgM 3		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan and manage the movement of animals on farms	1.1 Develop plans that ensure the availability of suitable locations/premises and associated resources	Consider distances, access routes, methods of movement, demand for resources partic labour, minimisation of stress, availability of handling facilities, run – back where appropriate, access to water and suitable feeding facilities. Assess staff training needs.
	1.2 Explain the necessary hygiene and bio-security arrangements	Obtain movement licenses where appropriate. Plan to avoid contact with other farms/stock. Review use of chemicals/disinfectants and other disease spread precautions. Consider need for isolation, quarantine or pre mixing arrangements. Initiate/maintain appropriate records and decide responsibility for completion. Consider the need to mark animals
	1.3 Produce protocols for particular movement procedures that farm staff and others can follow and develop effective communication strategies	Plan must meet business, legislative and code of practice requirements. Consider communication strategies for all involved, internal and external. Identify factors that minimise resources inputs, time and disturbance to stock. Consider contingency arrangements and the ability to cope with unplanned events
2. Be able to monitor the implementation and effectiveness of the plans	2.1 Monitor the implementation and effectiveness of plans, protocols and procedures	Regular inspection/observation, communication and review. Rapid identification of problems and implementation of corrective action: staff, equipment, animal health, movement routes. Monitor new legislation and guidance and incorporate. Respond to external factors resulting in changing practices



## Unit 403

	2.2 Justify the necessary recording and reporting arrangements	Identify requirements for compliance. Produce samples of appropriate records. Evaluate the importance and the need for each. Evaluate the reporting and inspection processes
	2.3 Explain contingency action	Identify circumstances where this may be necessary. Consider resource implications and review the capacity of a particular farm to respond. Review the need for external support. Ensure suitable plans are written and communicated. Review regularly and test responsiveness
	2.4 Ensure all procedures comply with appropriate legislation and codes of practice	Undertake risk assessments, implement necessary controls and set action plans. Review regularly and update/amend as appropriate. Review new and emerging legislation and codes of practice. Consider environmental effects.
3. Understand how to plan, implement and monitor appropriate arrangements for the movement of animals on farms	3.1 Describe the circumstances which require livestock to be moved and the necessary resources required	Describe the factors that make movement necessary: seasonality, age, sexual maturity, nutritional requirements, need for isolation, buying and selling. Consider the impact: enterprise, whole farm, interested parties. Identify and review the necessary resources: location/premises, handling equipment, skilled personnel transport
	3.2 Explain the legislation and codes of practice and associated recording/reporting arrangements	Research current requirements. Review regularly. Ensure up to date risk assessments are maintained. Understand the responsibilities of an organisation and associated implications for non compliance. Health and safety policy; need for and importance of. Include consideration of environmental factors. Know the necessary recording requirements and associated inspection/audit regimes.
	3.3 Describe the implications to health and safety and welfare of animals, farm biosecurity and possible environmental impacts	Consider how movements can impact on the health and welfare of animals. Consider how feeding requirements may change as a result of animal movements. Identify how biosecurity/health status may be compromised through moving. Understand that different animals may have specific needs before, during and after movement: define the common changes in behaviour

## Unit 404

TITLE	Manage grassland and forage crops for livestock production systems	Learner's name
UAN	J/503/4330	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, monitor and evaluate the management of grassland and forage crops for livestock production systems.		
Relationship to National Occupational Standards : AgM4		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan an establishment programme for a range of grass and forage crops	1.1 Judge the importance of rotation	Consider sequence and integration of crops, residual fertility, liming, timing of operation, pest and disease control, weed control, best use of farm manures, access for harvesting and storage, soil structure
	1.2 Critically compare different crop/ variety choices in relation to a given situation	Must include yields, suitability to the farm, nutritive values, balance with other foods in the diet, access, harvesting/storage, cost analysis, impact on animal health
	1.3 Develop a plan to establish a range of grass and forage crops for a chosen livestock production system	Consider sowing/establishment options, timing of operations, management of the growing crop and labour and machinery requirements, use of contractors, timeliness and weather/soil conditions, lifetime of pastures and reseeded policies. Financial considerations
2. Understand the influence of the soil on the establishment and management of grass and forage crops	2.1 Explain how different soils will determine cropping policy	State the common soil types and list their characteristics. Relate to a specific situation and available information, interpret in the context of cultivations, crop establishment, crop management and particularly autumn harvesting and/or access
	2.2 Describe how soil structure can be assessed and improved	Include soil assessment techniques and analytical data, describe management and cropping practices that will improve soil structure, consider cost effectiveness

## Unit 404

3. Be able to produce a management plan for a range of different grasses and forage crops	3.1 Design a fertiliser programme	Include soil analyses, crop nutrient requirements, use of organic manures, sources of artificial fertiliser, timing and methods of application, environmental factors, assurance standards, cost analysis
	3.2 Produce a programme for the control of selected weeds, pests and diseases	Include identification of common weeds, pests and diseases, effects on crop growth and feed quality, health issues, control methods. Relate to assurance schemes. Consider environmental impact. Cost analysis
4. Monitor and evaluate the management plan	4.1 Explain the records necessary for compliance and for monitoring the crop management plan	Identify requirements for compliance and assurance schemes. Produce samples of appropriate paperwork. Explain the audit/inspection process
	4.2 Appraise the adequacy of overall fodder production in relation to livestock needs on the farm	Review overall crop yields grazed or harvested, livestock numbers, diet plans, adequacy, sufficiency and nutritive quality, purchased foods, animal performance levels relative to targets, animal health. Cost factors
	4.3 Evaluate the physical and financial effectiveness of the plant nutrient and crop health programmes	Consider value of production in relation to variable management inputs. Use benchmarks and comparative data. Marginal analysis. Related physical and financial benefits/issues. Environmental factors and long term sustainability. Quality assurance standards

## Unit 405

TITLE	Plan and manage forage conservation and storage	Learner's name
UAN	L/503/4333	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, monitor and evaluate forage conservation and storage.		
Relationship to National Occupational Standards : AgM5		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan and manage the conservation and storage of grass and forage crops	1.1 Critically compare alternative systems of harvesting and storage	For various forage systems in use on livestock farms. Consider factors that determine feed quality, minimise crop losses, and the fit to system of feeding and production timetable. Include reference to the environmental impact particularly effluent management and pollution. Financial considerations
	1.2 Develop plans for the effective harvesting, storage and utilisation of grass and forage crops	Relate to a specific farming situation. Include time, frequency and method of harvesting. Consider target yield and feed values. Assess resource requirements partic labour and machinery. Consider use of contractors. Assess field conditioning of grass and use of additives for ensiled crops. Plan the storage system: location/site, capacity, access, feeding arrangements, covering and where appropriate sealing, minimising waste, management of effluent and other environmental issues. Costs: capital and revenue.
	1.3 Ensure plans are in accordance with relevant legislation and codes of practice	Ensure working methods promote health and safety. Consider the environmental impact of all plans partic management of effluent and disposal of waste

## Unit 405

2. Be able to monitor and evaluate the effectiveness of harvesting and storage of conserved grass and forage crops	2.1 Assess the quality and feed value of stored crops	Include sampling methodology and analysis techniques for stored grass and forages. Consider the interpretation of analyses and the need to produce well balanced diets that meet animal requirements. Monitor quality and adjust diets accordingly. Consider possible health issues and actions that may be taken to reduce these
	2.2 Monitor crop volumes in store and relate to requirements, taking appropriate action if needed	Calculate quantities in store. Consider the need to buy in and evaluate alternatives. Ration accordingly. Re-assess regularly and consider necessary action.
	2.3 Ensure storage management during feeding minimizes quality deterioration and waste	Ensure that storage and feeding management minimise waste and quality deterioration. Review regularly. Identify appropriate action if necessary and implement. Monitor the effects.
	2.4 Ensure working methods promote good health a safety	Identify possible problems with health and safety through a process of risk assessment. Review existing controls and plan remedial action as appropriate. Implement and monitor.
3. Understand how to plan, manage, monitor and evaluate the harvesting, storage and utilisation of grass and forage crops	3.1 Describe the conditions/ characteristics that indicate that the crop is suitable for harvest	Assessment of D value relative to dry matter and yield. Prevailing weather conditions and forecasts. Soil conditions and access. Integration with harvesting of other crops. Availability of contractors where used. Environmental and legislative factors
	3.2 Discuss the factors linked to harvest and storage that will influence the quality of conserved crops	For example: timeliness of harvesting, field conditioning and wilting of grass, freedom from soil contamination, avoidance of damage, rapid clamping techniques, consolidation and sheeting/sealing of silages, use of covered stores, good drainage, management during the feeding stage.
	3.3 Explain how to calculate the quantity in store and how to interpret conserved forage analyses	Techniques for determining volumes of stored crops and converting volumes to weights. Ability to use conversion data. Sampling techniques. Forage analysis services available. Interpretation of forage analyses – use in ration formulation
	3.4 Explain the health and safety standards and other compliance requirements relating to the harvesting, storage and utilisation of conserved crops	Research. Review regularly. Ensure up to date risk assessments are maintained. Understand the responsibilities of the organization. Be aware of the need for a health and safety policy for a farm. Consider compliance requirements and quality assurance standards.

## Unit 406

TITLE	Produce, monitor and manage forage plans including grazing	Learner's name
UAN	R/503/4334	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to produce, monitor, manage and evaluate forage plans to include grazing.		
Relationship to National Occupational Standards : AgM 6		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to produce and manage forage plans including grazing	1.1 Calculate forage requirements based on a chosen production system and available resources	Determine stock numbers, ages and production systems for different classes of forage fed livestock. Calculate feed requirements. Consider available resources. Determine home grown versus purchased. Financial considerations. Calculate area of forage crops in relation to land availability.
	1.2 Evaluate forage crops/grass and match these to production system requirements	Choose forage crops/ grass. Evaluate suitability of different forage crops/grasses: nutritive values, complimentary aspects, health factors, suitability to stage of production, storage and feeding arrangements, field access for grazed crops, suitability to farm. Consider rotational factors. Financial considerations. Consider alternative grazing systems.
	1.3 Use grass budgeting techniques including measuring grass and take action as required	Plan requirements for grazed grass at different times in the season partic for dairy cows. Consider autumn/winter management to produce the spring "wedge". Consider timing and management at turnout. Use of the plate meter for measuring covers and matching growth to consumption. Planning rotation intervals for grazing

## Unit 406

2. Be able to monitor and evaluate the forage plan	2.1 Decide on the most appropriate recording system and embed this	Consider manual or electronic. Use of comparative data and benchmarks. Frequency and ease of recording. Integration in to the overall management recording system
	2.2 Implement the plan and monitor on a regular basis	Regular review, reports, meetings. Implement corrective action/change as appropriate. Consider impact on animals, rotational effects and timeliness
	2.3 Evaluate the outcomes of the plan and compare to relevant benchmarks	Review regularly. Include benchmark comparisons to “best” data. Consider management practices. Consider crops grown. Consider feeding issues/problems
	2.4 Ensure working methods promote health and safety and are consistent with relevant legislation and codes of practice	Identify possible problems with health and safety through risk assessments. Implement necessary controls. Review regularly and take corrective action
3. Understand how to plan, manage, monitor and evaluate forage plans	3.1 Describe the potential yields, costs and nutritional benefits of a range of suitable forage crops/grasses	Research best data and specialist advice most applicable to farm and location e.g. yields, nutritive values, physical properties, production costs. Also assess past on farm experiences. Tabulate and review. Consider possible health problems and suitability to class of livestock and stage of production. Complimentary benefits
	3.2 Explain the methods of calculating annual forage requirements	Match total livestock requirements for different forages to predicted crop yields. Determine crop areas. Consider mix of crops and rotational effects
	3.3 Explain how grass budgeting should be used to aid management	Regular measurement of covers using a plate meter. Establish area required for a given number of cows. Continually review milk yields, cow behaviour and state of grazed pastures
	3.4 Explain how to source new technology and how to evaluate the usefulness to the situation	Engage in knowledge/technology transfer activities for information for a partic farm e.g. internet, technical bulletins/publications, research data, focus groups, farm visits Review regularly. Establish preferred learning style. Evaluate the effect of changes
	3.5 Describe the legislative factors and codes of practice that relate to forage planning and management	Research and review regularly. Ensure up to date risk assessments are maintained. Understand the responsibilities of an organisation. The need and importance of a health and safety policy. Consider environmental codes

## Unit 407

TITLE	Plan, monitor and evaluate the nutrition of production ruminants	Learner's name
UAN REFERENCE	Y/503/4335	
LEVEL	4	
CREDIT VALUE	12	
The aim of the unit is to provide the learner with the knowledge, understanding and skills to plan, implement, monitor and evaluate the nutrition of production ruminants.		
Relationship to National Occupational Standards: AgM7		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to recognise the role of nutrition in animal health and performance	1.1 Establish the effects nutrition has on an animals performance	For a stated species and class of animal identify the animal and key production factors (e.g. yield, growth rate, body condition, health, welfare, fertility, pregnancy, prolificacy) and identify the how these can be affected by nutrition (diet, types of feed, feed availability, feeding system, expertise of staff, equipment)
	1.2 Evaluate the benefits of improved nutrition	Monitor performance levels (e.g. yield, growth rate, body condition, prolificacy), disease incidence (metabolic and infectious) and feed quality (e.g. forage, grass, silage). Quantify the effect of changes in nutritional value (e.g. changing from first to second cut silage, different supplier) and /or feeding system (e.g. <i>ad libitum</i> , TMR, easy feed, grazing)
	1.3 Identify nutritional practices that can lead to nutritional problems	Relating to production system, identify potential practices that can impact negatively upon health e.g. starch levels, grazing spring grass, cleanliness of feeding utensils, age/production stage related feed stuffs



## Unit 407

	1.4	Evaluate a range of feedstuffs and supplements	Select and evaluate individual feeds (e.g. concentrate, forage) and supplements (e.g. minerals, yeasts) to complement the production system and performance levels required taking into account forage and feed availability, Welfare Codes, farm assurance and market requirements (e.g. organic, conventional).
2. Be able to plan, implement and monitor rationing systems for livestock	2.1	Evaluate the raw materials available, purchased foodstuffs and rations to be prepared	Define number of rations to be formulated to meet the needs of a particular production system. Investigate available ingredients (home grown and/or purchased) in terms of cost, nutritional value, availability, palatability and ability to meet health and welfare, animal needs and production targets.
	2.2	Determine rationing policies that promote animal health, welfare and productivity	Consider rationing policies (e.g. feeds, feeding systems, timings, equipment, feed availability, forage policy, staff skills) that meet stated current and future performance levels (e.g. yield, growth, pregnancy), promote good health and welfare, and comply with industry standards, farm assurance and market requirements seeking specialist advice when needed (e.g. vet, nutritionist). Select options that meet the set objectives, relevant legislation and codes of practice.
	2.3	Formulate diets for a range of livestock situations	Plan diet formulation (by hand or ICT) seeking specialist advice where needed for a range of livestock situations (e.g. production level, age, breeding or finishing stock, breed,) that meets requirements of health and welfare codes and regulations, markets and farm assurance schemes.
	2.4	Monitor the diets given to livestock	Monitor the delivery of the agreed rations and suitable records (e.g. feeds used stocks, feed analyses, ingredient specifications, delivery notes) and compliance with e.g. health and safety legislation, welfare codes and farm assurance schemes. Monitor the effectiveness of the diet against short and long term objectives both physical (e.g. feed usage, animal condition, performance, feed availability, finishing grades, killing out percentage, milk yield and quality, animal health, staff skills, equipment effectiveness) and financial (e.g. market returns, cash flow, budgets) using e.g. historical and benchmarking data, industry standards, farm assurance requirements and identifying areas for improvement. Consult specialist advice when needed

## Unit 407

3. Understand how to recognise the role of nutrition in animal health and performance	3.1 Discuss the digestive processes linked to animal species, animal health, well being and productivity	Describe the role of rumen micro flora and fauna, pH and fibre levels and the utilisation of energy, protein, minerals, vitamins, NPN and protected nutrients in ruminant digestion and feeding emphasising the synthesis of new compounds within the rumen.
	3.2 Explain the benefits of improved nutrition on animal health, well-being and productivity	Describe the effects of improved nutrition (e.g. timings, feed analysis, minerals, protected feedstuffs, additives, feed space, water quality, individual rations) on yield, growth, health and fertility for a range of animals at different stages of maturity and/or production cycle.
	3.3 Explain how to evaluate feedstuffs for ration use	Explain the importance of water quality (bacterial, mineral, pollutant), availability (e.g. for differing performance, size, diet and climate) and methods of supplying adequate volumes and quality. Interpret feed analyses and discuss how to use this information in designing and modifying a ration.
	3.4 Discuss the specific action of mineral, vitamins and other supplements and their cost benefit	Describe for a range of minerals, vitamins and supplements applicable to a production species their importance to the animal, sources and means of feeding. Analyse the cost of supplying supplements relative to their affect on health and production
	3.5 Explain the legislation, regulations, codes of practice and quality assurance affecting the nutritional management of animals	Discuss how feeds and feeding systems comply with relevant legislation and codes of practice (food storage, health and safety, Control of Substances Hazardous to Health (COSHH), on farm mixing, Welfare Codes, transport) and food safety issues, farm assurance, market requirements and environmental concerns (e.g. carbon footprint, waste disposal)

## Unit 408

TITLE	Farm environmental planning, management and monitoring	Learner's name
UAN REFERENCE	H/503/4337	
LEVEL	4	
CREDIT VALUE	15	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, monitor, manage and evaluate a farm environmental plan.		
Relationship to National Occupational Standards : AgM 8		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Understand how to plan, monitor and evaluate an environmental plan	1.1 Describe the detail of agri-environmental designations, directives, grants, status options and biodiversity programmes	Know how to access information particularly regarding geographic location, eligibility, benefits, costs, implications, demands, compliance and timeframes. Differentiate between optional and compulsory requirements.
	1.2 Explain the need for a well planned and integrated environmental management plan on a farm	Relate to biodiversity balance, soil health and productivity, soil erosion, water quality, air pollution, pollination and crop yields, resource use and sustainability, carbon management.
	1.3 Explain how to assess the environmental value and potential of a site	Consider survey methodologies. Assessment of land quality and potential both agricultural and environmental. Relate environmental value to natural habitats and special types particularly rare or protected species. Agricultural value to include soil type, topography, altitude, climate, access and location.
	1.4 Explain how to assess a farm's carbon footprint and how to reduce the contribution to emissions	Explain techniques for assessing carbon footprints. Review the impact of farm machinery, transportation, sourcing and distribution, livestock numbers, alternative energy sources, woodlands. Consider opportunities for "recycle, reduce, re-use".
	1.5 Describe the process of producing a work specification and estimate of resources	Consider type and location of site, work required, resources needed/available (sizes, volumes, preferred suppliers), time frames, skills audit, contract options. Need to know how to produce work specifications and bills of quantity

## Unit 408

2. Be able to plan and manage a farm environmental management plan	2.1 Identify designations, directives, grant schemes, status options and biodiversity programmes relevant to a given farm situation and maximise the overall benefits of these	Identify and research for a given farm situation. Where optional undertake financial/environmental benefit analyses. Consider compliance factors and other implications/commitments. Seek specialist advice e.g. FWAG. Relate to emerging policies.
	2.2 Carry out an environmental audit for a farm ensuring compliance with farm assurance schemes	Define the purpose and objectives. Consider options of self produced or commissioned. Include biodiversity and compliance to farm assurance schemes. Consider special designations e.g. LEAF
	2.3 Identify key priorities and timescales	Produce an action plan of activities with Specific Measurable Achievable Realistic and Timely (SMART) targets. Consider implementation, resources, energy use, effectiveness and evaluation. Set the top three priorities
	2.4 Produce and implement an environmental management plan for a given farm	Produce maps/plans/specifications – link to audits, action plan and priorities. Relate to environmental, aesthetic and social/community benefits. Consider cost and legal constraints. Relate to specific compliance issues and the availability of grants Consider the effective disposal of organic waste
	2.5 Ensure that the plan meets and embeds the requirements of cross compliance and relevant legislation and codes of practice	Incorporate cross compliance and legislation as appropriate. Relate to a specific farm situation
3 Be able to monitor and evaluate the effectiveness of an environmental plan	3.1 Justify the necessary recording and reporting arrangements	Identify the requirements for a given farm situation. Produce samples of appropriate records e.g. for organic manures, artificial fertilisers, waste products, volumes of fuel. Evaluate the importance and the need for each. Evaluate the reporting and inspection processes both internal and external.

## Unit 408

	3.2 Critically evaluate the outcomes of completed work and implement remedial action where necessary	Evaluate against set criteria e.g. energy efficiency, biodiversity gain, time, finance, production benefits. Consider the impact of any proposed changes on the overall plan. Also consider reporting arrangements.
	3.3 Analyse data and use this to inform the planning of future work	Collect and process data for a given situation. Demonstrate how this can be used to improve/develop the environmental plan for the farm.

## Unit 409

TITLE	Plan , manage and monitor the operation and performance of the enterprise	Learner's name
UAN REFERENCE	M/503/4339	
LEVEL	4	
CREDIT VALUE	15	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, manage, monitor and evaluate the operation of an enterprise.		
Relationship to National Occupational Standards : AgM9		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan and manage the operation of an enterprise	1.1 Appraise and agree the objectives/ targets of the enterprise	Define the objectives/targets, physical and financial. Ensure that the objectives are Specific Measurable Achievable Realistic and Timely (SMART). Seek specialist advice where appropriate. Ensure effective communication to all interested parties
	1.2 Develop plans for the system of production that will deliver the objectives/targets set	Consider environmental factors and sustainability. Must meet quality assurance standards and protocols. Consider resource constraints, farm and market opportunities, and cost implications. Consider animal welfare implications.
	1.3 Ensure plans are in accord with recognised standards and meet current and emerging legislation and codes of practice	Consider current and emerging legislation and codes of practice
	1.4 Produce physical and financial forecasts based on the targets	Decide whether monthly, quarterly or annual. Focus on key input/output information. Concentrate on areas that management can readily influence

	1.5 Interpret and respond to market requirements so as to maximise opportunities	Review regularly. Undertake sensitivity analyses. Consider factors such as quantity, size/volume, quality specifications, seasonality, security of contract, potential competition
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## Unit 409

2. Be able to monitor and evaluate the operation and performance of the enterprise	2.1 Justify a suitable physical/ financial enterprise control system	Consider use of manual or electronic technology or a combination. Review data collection processes: physical and financial. Consider integration of software. Ensure controls focus on key performance criteria e.g. product quality, cost per kilo/litre, margin over feed. Evaluate alternatives and suitability for purpose also access and costs
	2.2 Monitor and evaluate the performance of the enterprise on a regular basis and implement remedial action where necessary	Decide frequency of review and by whom. Decide channels of communication and who is empowered to make decisions. Describe possible types of remedial action. Define the term “normalised” relating to data. Consider the impact of changes on other enterprises/whole farm. Consider use of specialist advice. Consider impact of changes on resource requirements
	2.3 Review regularly the effectiveness of procedures and protocols and make changes as necessary	Decide frequency and the basis of assessment including benchmark comparisons. Agree communication strategies and who is empowered to make decisions. Describe possible types of remedial action. Test the validity of information/data. Consider the use of specialist advice. Evaluate the impact of change
	2.4 Monitor compliance to farm assurance standards and with statutory requirements and codes of practice	Test procedures and protocols against quality assurance standards and statutory requirements and codes of practice. Modify as necessary and evaluate the physical/financial impact of change

3. Understand how to plan, manage and monitor the operation and performance of the enterprise	3.1 Explain the importance of establishing a balanced (complementary) enterprise mix	Make best use of farm resources e.g. organic by products. Other factors: demand for labour and machinery, cash flow, spread of risk, control of pest weed and disease. Explain the problems associated with competitive enterprises
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## Unit 409

	3.2 Describe the relevant legislation and codes of practice and associated recording and reporting requirements	Research and Review regularly. Ensure appropriate risk assessments are undertaken and maintained. Understand the responsibilities of an organisation. Health and safety policy need and importance. State the necessary recording arrangements and associated inspection/audit regimes
	3.3 Explain how to research and evaluate new and emerging technology	Research and review regularly and assess how new technologies may influence the plan. Important to particularly consider impact on environmental factors and cost implications
	3.4 Describe how anticipated internal and external policy changes may influence the enterprise	Changes may include; farm resources, family issues, unplanned events and contingencies, external policy directives, CAP and levels/areas of farm support, export opportunities, market swings driven by consumer taste: locally , nationally, globally. Consider impact on the plan and implement agreed changes



## Unit 410

TITLE	Plan, manage and evaluate breeding programmes	Learner's name
UAN REFERENCE	M/503/4342	
LEVEL	4	
CREDIT VALUE	212	
The aim of the unit is to provide the learner with the knowledge, understanding and skills to plan, implement, monitor and evaluate breeding programmes.		
Relationship to National Occupational Standards: AgM10		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan breeding programmes	1.1 Establish the intended purpose, objectives and targets of the breeding programme	Determine targets for breeding plan e.g. numbers of replacements, Artificial Insemination (AI), natural service, embryo transfer, sexed semen, breed improvement, performance improvement, improvement of health status, market requirements, timings of service, culling policy, ram : ewe ratio, seasonality, feed and feeding systems, housing and labour availability. Ensure plan complies with Welfare Codes, legislation and assurance schemes and that plan is cost effective e.g. by budget analysis. Identify and seek specialist internal/external guidance if required.
	1.2 Specify arrangements for monitoring and reviewing policies	Select and implement suitable recording and observation systems and policies for monitoring mating communicate, where required, findings and decisions effectively with those necessary to ensure effective implementation of plan
	1.3 Implement and maintain necessary recording and reporting arrangements for the breeding programme	Select and implement checks on success of heat detection, service, maintenance of pregnancy (e.g. milk testing, scanning, observation, rectal diagnosis or other physical checks) and numbers of young born (e.g. male: female or litter size) against plan. Plan and prepare for the post natal care of the infant in the first 24 hours (e.g. colostrum, navel, accommodation, fostering). All in accordance with relevant Welfare Codes, disease prevention (e.g. Johnes) and farm assurance schemes, health and safety regulations.

## Unit 410

2. Be able to implement and monitor breeding programmes	2.1	Plan and implement mating from chosen parents matching the breeding objectives	Select dam and sire criteria to meet objectives of breeding plan. Plan the preparation of animals and facilities to enable successful mating in accordance with Welfare Codes, legislation, five freedoms and health and safety regulations. Manage service: AI, natural service, synchronised breeding, heat detection techniques.
	2.2	Obtain data and information from the implementation of the breeding programme	Select suitable monitoring and recording techniques for each stage of the breeding plan, evaluating the records (e.g. heat, service, pregnancy diagnosis, scanning, condition score, weight, health, feed) and adapting, modifying or deciding on remedial action as required.
	2.3	Review progress and adapt policies by internal and external factors	Assess the strengths and weaknesses of the programme (reference to benchmarking data, industry standards, etc) and modify as appropriate.
3. Understand how to plan, implement and monitor breeding programmes	3.1	Describe how to obtain and interpret generic information on sire and dams	Describe where to obtain (e.g. vet, professional bodies, breed societies, internet, commercial companies) and demonstrate how to interpret and use genetic information on evaluating breeding animals (e.g. EBV, BQI, PTA). Explain the use of Pedigree stock, performance recording, benchmarking, typing, embryo transfer, sexed semen, semen manipulation in breeding programmes.
	3.2	Explain how to calculate potential genetic merit of planned mating	Describe the structure of the chromosome, define the terms gene and allele. Describe the function of meiosis. Explain, giving examples where possible, the principles of Mendelian inheritance to include dominant and recessive genes, absence of dominance, lethal genes, heritability, sex linkage, modifier genes.
	3.3	Explain the desirable and undesirable traits in animal specific to purpose	Describe hybrid vigour (e.g. stratification of the sheep industry) and nicking (e.g. North Country Mule) and their value in livestock production systems. Select desirable (e.g. good temperament, mothering and FCE) and undesirable (e.g. low LWG, difficult calving, litter crushing) traits for one class of livestock.
	3.4	Explain the implications of inbreeding, line breeding, crossbreeding and resultant hybrid vigour	Describe the role of different breeding methods used in grading up and the production of new breeds and commercial stock. Discuss the effects on genetic progress of breeding for multiple traits. Describe the relative roles of breeding and environment (genotype and phenotype) on genetic progress. Discuss the potential roles of cloning and GMOs in livestock breeding.

## Unit 410

	3.5	Describe how to implement and communicate breeding plans	Recording, communication (internal and external to organisation), monitoring and recording, planning, resources, stock, timings, verbal and non verbal communication
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## Unit 411

TITLE	Plan and manage the health and welfare of livestock	Learner's name
UAN REFERENCE	M/503/4373	
LEVEL	4	
	12	
The aim of the unit is to provide the learner with the knowledge, understanding and skills to plan, implement and manage the health and welfare of livestock.		
Relationship to National Occupational Standards: AgM11		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan and implement the health and welfare of animals	1.1 Design a health and welfare plan	Carry out a health risk assessment relevant to both animals and humans and prepare a health and welfare plan with clearly defined targets (e.g. disease detection methods, measurement of disease incidence and its reduction, vaccination, worming, timings, metabolic disorder prevention and treatment, routine treatments, in-feed medication, bio-security measures, isolation procedures, vermin control, water quality and supply, visiting vehicle and persons control measures, organic and inorganic waste management, mastitis and lameness monitoring and control) that complies with relevant legislation and Welfare Codes. Consult vet and other specialists (e.g. nutritionist, soils analyst) in formulation of plan. Identify training requirements. Assess potential benefits including calculation of cost implications and effect on profitability.
	1.2 Implement a health and welfare plan	Implement the plan, deciding upon facilities (e.g. isolation unit and other bio-security measures, suitable penning, handling system, housing, bedding), equipment (e.g. for vaccination, drenching, bolusing; syringes and needles) and materials (e.g. medicines, markers, minerals, lime, teat/navel treatments). Identify training needs and ensure waste is disposed of in accordance with legislation and codes of practice.

## Unit 411

2. Be able to manage the health and welfare animals	2.1 Ensure that a health and welfare plan is implemented successfully	Regular checks of progress and effectiveness against key performance indicators e.g. target treatment dates, stock levels, disease incidence
	2.2 Implement a recording keeping system	Implement monitoring and recording systems (e.g. for facilities, equipment, supplies, health status, animal performance, fertility and training needs) that meets requirements of the health plan and complies with Welfare Codes, assurance schemes and legal requirements.
	2.3 Monitor and evaluate the effectiveness of the plan	Evaluate observations against e.g. historical and benchmarking data and key performance indicators to compare own performance to similar types of business. Adapt the plan to ensure maintenance of health, performance and profitability.
3. Understand the planning of the health and welfare of animals	3.1 Discuss the symptoms and seasonality of all significant diseases and disorders that affect the enterprise	Identify the main diseases relevant to the enterprise/class of stock and discuss their incidence, seasonality, severity, transmission, means of identification, symptoms and the possible methods of prevention and treatment. Discuss their relevance to food security, public perception and the industry as a whole.
	3.2 Explain how to monitor information and data and implement necessary action	Records, observations, national and regional media and sources of information on disease and its control (e.g. vets, journals, internet). Steps to be taken
4. Understand managing of health and welfare of animals	4.1 Explain how to implement a system of management that prevent or lessons the likelihood of disease, disorders or other health related issues occurring	Explain the importance of accurate and timely communication of information both within and outside the organisation in effective disease control and compliance with legislation, farm assurance and maintenance of welfare standards. Describe bio-security methods that can be implemented on farms. Regular checks on performance
	4.2 Describe how to produce or obtain health and welfare recording and reporting systems that meet managerial requirements, legislation and farm assurance schemes	Discuss sources of approved recording systems, the role of DEFRA, the vet and other specialists in maintaining animal health on the farm. Explain ways of achieving cost effectiveness in animal health schemes. Explain the application of relevant legislation and codes of practice

## Unit 412

TITLE	Plan and maintain the provision of livestock replacements	Learner's name
UAN REFERENCE	M/503/4356	
LEVEL	4	
CREDIT VALUE	12	
The aim of the unit is to provide the learner with the knowledge, understanding and skills to plan, buy, rear and maintain the provision of livestock replacements.		
Relationship to National Occupational Standards: AgM12		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan the provision of livestock replacements	1.1 Evaluate options for obtaining replacement livestock	Consider rearing own, contract rearing or purchasing. Relate to herd/flock requirements e.g. for performance, potential market, grazing or feeding system, breed type, replacement rate, growth of enterprise and physical resources and restraints (e.g. housing, land availability, equipment, labour, feed supplies, topography, altitude, soil, rainfall) and finance (costs, budgets, opportunity costs)
	1.2 Select preferred feasible options matching business requirements and restraints	Identify suitable sources/methods (private purchase, market, embryo transfer, import, agents and dealers) for obtaining replacement stock and prepare specification that meet requirements of own herd/flock for health status, breed, breed type and physical performance, age, size and condition. Devise rearing system with target growth rates, weights, condition scores and timings that meet herd/flock requirements and conforms with farm assurance and health plans.
2. Be able to buy in livestock replacements	2.1 Determine specification for livestock purchase to meet enterprise requirements	Devise plan to purchase stock stating e.g. quantities, replacement rates, timings, ages, condition scores, weights, breed type and determine transport specifications for collection and delivery to fit replacement policy.

## Unit 412

	2.2 Plan and implement appropriate bio-security measures to receive the new stock linked to the health and welfare plan	Plan and implement isolation requirements for purchased/introduced stock (vehicle, building, grazing area, regular inspection, medicinal provision e.g. vaccination).
	2.3 Determine procedures for monitoring stock health, well-being and performance and any necessary actions	Select suitable monitoring system for the stock e.g. observation, weighing, food consumption and health and compare to stated targets taking action where required. Plan and implement a health programme for home reared stock to include routine and potential non routine treatments, observation and recording methods. Compliance with health plan and welfare codes.
3. Be able to rear livestock replacements	3.1 Determine policies for chosen rearing system	Define performance targets (e.g. weaning weights, turnout weights, service weights, condition scores, ages, timings, daily liveweight gains). Identify and utilise suitable monitoring and recording methods (weighing, inspection, measuring height at withers, condition scoring, food consumption, health) and communicate and implement corrective measures to meet targets.
	3.2 Monitor performance against targets identifying problem areas and modify plans as appropriate	Monitor actual performance of breeding plan against targets both financial (e.g. price changes, use of budgets) and physical (e.g. numbers required or available, type, condition, growth rate) on ongoing basis. Adapt plans as needed
4. Understand how to plan and maintain the provision of livestock replacements	4.1 Explain how to evaluate the opportunities and constraints in determining a course of action beneficial to the organisation	Examination of e.g. budgets, skills, labour, land and buildings, machinery availability, genetic progress, health status and risk
	4.2 Explain how to identify suitable sources with appropriate health status when buying in livestock	Discuss suitable means of acquiring replacement stock and factors that should be considered e.g. health, breeding plan, performance, typing, numbers, seasonality of production.

## Unit 412

	<p>4.3 Discuss the physiology of animal growth and possible effects of rearing performance on subsequent performance</p>	<p>Describe the effects of relative growth rates of bone, muscle and fat and their manipulation by diet, feeding method, different breeds and commercial crosses, early vs. late maturing breeds, compensatory growth. Discuss the effects of rearing systems on later production e.g. fat deposition in udder, age at puberty, indiscriminate breeding</p>
	<p>4.4 Explain the different aspects and policies of animal health, well-being, performance and nutrition and how they interrelate</p>	<p>Discuss the health and feeding plans, policies and protocols used on the farm and how these comply with Welfare Codes, the Five Freedoms, farm assurance and market compliance schemes and relevant legislation e.g. environmental protection, notifiable disease, health and safety, safe disposal of waste and fallen stock</p>
	<p>4.5 Explain how to monitor performance against key targets</p>	<p>Explain the importance of monitoring rearing stock against set performance targets and the factors that have to be taken into account when designing and monitoring these targets</p>



## Unit 413

TITLE	Plan, manage and evaluate site hygiene and biosecurity	Learner's name
UAN REREFERENCE	A/503/4358	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, manage and evaluate site hygiene and biosecurity.		
Relationship to National Occupational Standards : AgM13		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Understand the planning, managing and evaluation of site hygiene and biosecurity	1.1 Explain the importance of good hygiene and biosecurity procedures and protocols	Relate to the control of animal disease and the maintenance of high standards of food safety. Consider the implications where protocols/procedures are not strictly adhered to.
	1.2 Explain the relevant legislation and codes of practice and their associated monitoring	Include Animal Health Act 1981(Notifiable Diseases), holding numbers, herd/flock movement records, movement book, cattle passports, EID, Animal Movement Licenses(AML), general licenses for the movement of cattle/sheep/pigs, 6 day stand still period, Welfare of Animals(Transport)(England) Order 2006, veterinary medicines record, fallen stock scheme. Monitored through RPA/DEFRA inspection and tracing, Trading Standards, farm assurance schemes, health and safety legislation, food safety standards e.g. HACCP
	1.3 Describe the sources of information and advice available	Include DEFRA web site, local Trading Standards, Codes of Good Agricultural Practice for Farmers (soils, air, water), Codes of Recommendations for the Welfare of Livestock, HSE web site
	1.4 Describe the standards required by given quality assurance Schemes	Include dairy assurance and health plans (Assured Food Standards: "red tractor", Assured British Meat – ABM)

## Unit 413

2. Be able to plan and manage farm hygiene and biosecurity	2.1 Manage the necessary procedures and protocols for a given farm situation	Plan and implement procedures. Consider types of movement i.e. external movement on to the farm or “closed”. Consider numbers, types of stock and frequency of movement. Consider isolation and holding facilities. Consider facilities for cleaning and disinfection. Relate to personal and equipment hygiene. Include reference to chemical storage and use. Ensure compliance.
	2.2 Ensure comprehensive risk assessments are carried out and remedial action taken	Undertake and embed risk assessments regarding hygiene and biosecurity in general and in relation to specific standards e.g. HACCP. Implement necessary controls and action plans. Review regularly and update amend
	2.3 Ensure all agreed procedures and protocols are communicated to and understood by all relevant parties	Include display boards and signs, periodic meetings, publication of relevant documentation, management advice and guidance, appropriate training. Review regularly; ensure any new or emerging directives/regulations are communicated. Include contractors and others coming on to the farm
3. Be able to monitor and evaluate the sufficiency and adequacy of the hygiene and biosecurity arrangements	3.1 Justify the necessary recording and reporting arrangements	Identify requirements for compliance and to meet assurance schemes. Produce samples of appropriate paperwork. Evaluate the importance and need for each. Evaluate the reporting and inspection processes including internal/external audit arrangements
	3.2 Critically evaluate the effectiveness of the hygiene and biosecurity procedures and protocols	Review regularly and update/amend. Consider new and emerging requirements. Ensure inclusivity and effective communication. Evaluate the effectiveness of the record keeping and inspection processes
	3.3 Ensure all procedures and protocols meet Quality Assurance standards, legal requirements and appropriate codes of practice	Regular review of standards/legislation – implement change as necessary. Ensure specific regulations are considered e.g. COSHH. Review outcomes of inspections from external authorities and respond accordingly. Seek specialist advice where necessary

## Unit 414

TITLE	Plan, monitor and evaluate the nutrition of mono-gastrics	Learner's name
UAN REFERENCE	A/503/4358	
LEVEL	4	
CREDIT VALUE	12	
The aim of the unit is to provide the learner with the knowledge, understanding and skills to plan, monitor and evaluate the nutrition of mono-gastrics.		
Relationship to National Occupational Standards: AgM15		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	

1. Be able to plan, monitor and evaluate the nutrition	1.1 Recognise the structure, function and rationale of a feeding programme	Consider suitability for the production system, timings of ration changes, impact on farm staff to deliver changes, impact on livestock health and welfare, cost implications
	1.2 Select diets for the feeding programme	Taking necessary advice and critically appraising this. Must include protein (limiting amino acids), energy, vitamins and minerals and energy, compare to industry standard specifications, form (pellet / meal etc), delivery method Check compliance with legislation, codes of practice
	1.3 Plan for medication and ensure documentation is complete	Routine or prescriptive Make plans to ensure withdrawal periods are met
	1.4 Monitor that farm staff are adhering to feeding programme	Monitor that farm staff are adhering to feeding programme Ensure records are appropriate for traceability purposes; organisational and legislation Take steps to ensure that quality assurance standards are met for feed and water

## Unit 414

	1.5 Implement plans to monitor performance of animals	Use a recognised industry standard that includes feed e.g. tonnes feed / sow/year, FCR not growth rate alone, include all records necessary to gather required data. More than one standard may be necessary, depending on the type of business
	1.6 Evaluate programmes effectiveness	To include organisational standards and cost effectiveness. Use industry benchmarks Review programme and make changes as necessary Ensure working methods and practices promote health and safety and are consistent with relevant legislation, codes of practice and food safety
	1.7 Investigate problems relating to performance or diet	Identify causes, seek and take expert advice, leading to a resolution, report on findings to interested parties If a problem is not apparent, consider investigations that may lead to performance improvements
2. Understand how to plan, monitor and evaluate the nutrition	2.1 Explain the digestive processes linked to animal species	Label a diagram of the digestive tract, to include digestion of amino acids, fat and carbohydrate, vitamins and minerals Common problems linked with digestion
	2.2 Describe the nutritional requirements for species	Includes water How to match the feeding programme to livestock requirements at different ages / stages of production The legislation, regulations and codes of practice affecting the nutritional management of animals include environmental impact
	2.3 Explain the dietary specifications produced by mil/nutritionist	Identify commonly used ingredients and their nutritional values Include synthetic ingredients, reducing excesses, use of least cost formulations
	2.4 Describe the different types of medication available and their purpose	Prescriptive and preventative

## Unit 414

	2.5 Discuss how to monitor the nutrition programme for animals	The rationale for reviewing and communicating policies to others involved production system such as veterinary surgeons and farm staff The reporting and recording arrangements which are necessary under legislation, code of practice and food safety The quality assurance standards for feed and water The key performance indicators and how to calculate and benchmark results
	2.6 Discuss how to evaluate the nutrition programme for animals	How to identify problems with diets including ingredient, animal, environment and feeding methods influences as well as health and welfare issues How to solve identified problems The link between animal nutrition and environmental factors Where to source competent specialist advice if needed

## Unit 415

TITLE	Plant nutrients and fertilizer planning	Learner's name
UAN	R/503/4365	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan and manage plant nutrients and fertiliser use.		
Relationship to National Occupational Standards : AgM21		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to produce a manure management plan	1.1 Clarify the optimum levels of plant nutrients and pH levels for crops in a named rotation	Produce soil analysis and pH testing records including sampling methodology and analytical techniques. Demonstrate ability to use plant nutrient requirement and plant nutrient source reference material. Justification of optimum levels of plant nutrients. Must include cost benefit analysis.
	1.2 Develop a fertiliser management plan that will deliver sufficient plant nutrients and pH level to grow the named crops in a given rotation	<p>The plan will include identified plant nutrient and pH levels for a named crop. A record of soil analysis or estimation based on previous cropping (organic situation) environmental protection data, soil protection review, Nitrogen Vulnerable Zones (NVZ) compliance if applicable, maps showing vulnerable areas and water courses, records of organic manures applied with timings and method of application.</p> <p>Sources of plant nutrients i.e. organic manures, compounds, blends , straights, cost comparisons for different sources, similarly for calcium carbonate correction.</p> <p>Review and consider the consequence and effect of plant nutrients within the environment inc. leaching, excesses of nitrates and phosphates in watercourses, losses to the air eg timing of urea application. Application techniques and appliance testing to be discussed</p> <p>Plan to include storage arrangements and transportation legislation ref nitrogen</p>

## Unit 415

2. Be able to advise others who need to know the implementation of the manure plan	2.1 Carry out or instruct others on the implementation of the fertiliser plan	By self or others The fertiliser plan is used to advise all involved in its implementation. Check its use as a working document. staff training records, FACT certificates, fertiliser application machinery testing
3 Be able to calculate the cost of the manure plan and evaluate its effectiveness	3.1 Calculate and critically compare the cost of the fertiliser plan for different crops in a given rotation	Compare existing fertiliser plan with alternative forms of nutrient and pH balancing. Sufficient data available to allow bench marking or comparative analysis. Confirm if not demonstrated learners understanding of measurement units of nutrient declaration and ratios Question if not demonstrated learners understanding of chemical and physical properties of fertiliser types
4. Understand the properties and environmental impact of plan nutrient application	4.1 Explain how nutrients are lost from plants to the environment	Explain knowledge of leaching, particularly nitrogen and phosphorus. water run off, losses to the air in dry conditions Demonstrate knowledge of environmental protection. Nitrogen Vulnerable Zones (NVZ), current and new directives, soil protection
	4.2 Judge the economic and environmental consequences of: a) Inaccurate fertiliser spreading b) poor storage	Use typical examples to confirm awareness.
	4.3 Clarify the influence of local climate geographic factors on fertiliser quantity and timing for a given crop	Discuss the consequences of fertiliser applications in high environmental risk situations, e.g. urea in dry conditions, inferior formulation, use of nitrogen on early season brassica
	4.4 Explain how the placement of fertiliser can influence the quantity and timing of fertilizer for the crops grown	Use examples to confirm understanding e.g. placement for maize and potatoes. Direct injection into grassland. Discuss effect on timing and cost benefits

## Unit 416

TITLE	Plan, monitor and evaluate the management of crops	Learner's name
UAN	H/503/4368	
LEVEL	4	
CREDIT VALUE	15	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, monitor, manage and evaluate the establishment of crops.		
Relationship to National Occupational Standards : AgM30		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan and manage the establishment of crops	1.1 Identify the intended purpose of the crop area	Justification based on commercial and rotational grounds for growing the crop. Examine expected financial reasons for growing the crop and its place in the crop rotation
	1.2 Produce a management plan that includes: i) the resources required ii) health and safety policy	Produce a plan, that can be effectively monitored, that relates to a named crop. Evaluate the reasons for growing the crop with opportunities and constraints. Ensure the plan covers the crop's place within the cropping rotation. Residual nutrients and nutrients for the planned crop are stated. A justification of varietal choice based on demonstrated proven performance or latest research documentation. Include a management /cropping calendar that covers:- site preparation, seed, fertiliser and pesticide requirement and procurement. Schedule the resources and method of provision, study labour requirement along with seasonality. Identify critical management timings and points e.g. growth stages. Embed and ensure crop protocols, compliance with environmental stewardship schemes, soil protection reviews, cross compliance , health and safety and road traffic legislation
	1.3 Communicate the management plan to those involved	Include a communication procedure for all involved in the implementation of the plan, highlighting specific skills, qualifications and training updates required.



## Unit 416

2. Be able to monitor and evaluate the management of crops	2.1 Use suitable methods to monitor the management of the cropped areas	Evidence that the plan is used as a management tool to monitor the cropped area, plant populations, pest density, record crop walking with recommendations, weather and environmental impact. Use of appropriate IT software
	2.2 Take appropriate actions to maintain the crop management plan	Record of remedial actions taken, the effect of actions, witness statements from agronomists
	2.3 Evaluate the management plan with the use of accurate records	Review of physical and financial input and output data to demonstrate viability of growing the crop. Carry out benchmarking/ comparative analysis and varietal evaluation
3. Understand how to plan, monitor and manage crop areas	3.1 Explain the potential consequences of poor management of the planted area	Discuss the effects of poor site selection, poor seedbed prep. wrong varietal choice, incorrect plant nutrient provision, untimely pest control
	3.2 Define specific details of i) interventions ii) methods and consequences iii) disposal of waste iv) final intended condition of the site v) limits of own responsibility/ authority	
	3.3 Summarise own responsibilities within: (i) the organisations health and safety policy  (ii) other relevant legislation	Organisational health and safety is produced and own responsibilities discussed in the context of growing the crop. Cover use of managing staff, machinery, use of chemical and other hazardous substances  Include codes of good practice, environmental protection, road traffic legislation
	3.4 Explain the likely causes of deviations from plans	Include weather, labour availability, market forces, pests and diseases

## Unit 417

TITLE	Plan and manage the harvesting, transportation and storage of crops	Learner's name
UAN REFERENCE	K/503/4369	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learners with the knowledge, understanding and skills to plan and manage harvesting, transportation and storage of crops.		
Relationship to National Occupational Standards : Ag M 31		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan the harvesting, transportation and storage of crops	1.1. Identify the destination and marketing requirements of crops grown	Produce a marketing contract or a usage rationale that includes destination/ delivery point, quality and quantity, and delivery timings
	1.2. Produce a management plan for the harvesting, transport and storage of crops	Relate to a specific cropping situation. The plan to include timing and method of harvesting, optimum yields and quality with method of assessing both. Resources required inc.labour, machinery, storage and a plan for their preparation. Highlight use of contractors and special plans to ensure their effectiveness. Operational health and safety policy that includes use of all resources control plans. risk assessments for changing weather and marketing conditions and monitoring of the stored crop

## Unit 417

2. Be able to manage the harvesting, transportation and storage of crops grown	2.1 Monitor the management plan from accurately provided records	Manage, review and revise the plan. Records that demonstrate compliance with quality assurance standards which meet the needs of the buyer or user of the crop. Harvesting efficiency records, samples of harvested crops. Identification and actions taken to identify and rectify problems throughout the harvesting and storage process. Data that is used to critically assess the physical and financial performance and then used for future management planning
	2.2 Manage the safe use of equipment in accordance with legislation and manufacturers instructions	Machinery maintenance/ servicing and replacement records, renewal policy, operator training record, availability of operator manuals
	2.3 Manage the health and safety of all involved in harvesting, transportation and storage of crops grown	Effectively embed and monitor health and safety policy, including risk assessments and control of substances hazardous to health. Evidence reporting of incidences, diseases and dangerous occurrences as well as continual monitoring and improvements
3. Understand how to plan and manage the harvesting, transportation and storage of crops grown	3.1 Explain the importance of recognising and dealing with deviations from the plan	To lessen the detrimental impact of deviation, assist rapid remedial processes
	3.2 Summarise the types of crop harvesting, transportation and storage records and their purpose	Discuss alternative methods to those previously demonstrated
	3.3 Clarify the organisational health and safety policy	Explain organisational health and safety policy and their responsibilities therein, highlight limitations and who is responsible for them including the learners specific responsibilities and limits to their ability and authority
	3.4 Evaluate the impact different management methods have on harvesting, transportation and storage	Critically discuss alternative management methods to those presently used in the harvesting, transporting and storage process

## Unit 417

	3.5 Clarify remedial action that supports the harvesting, transportation and storage of the crop.=	For a named crop explain variations to harvesting methods, adjustments to harvesting machinery, additional drying , chemical or additive treatment, washing, cleaning. Discuss communications with the buyer/user, changes to contract or destination
	3.6 Analyse the skills required to monitor the crop through harvesting, transportation and storage	Discuss/ list skills required to monitor crop throughout process including ripeness of crop/ condition, contamination, damage in harvesting/ transport, continual monitoring of the stored crop, indicators or problems, signs of pest damage. Most importantly preemption of problems. Identification of further training required and how to source it

## Unit 418

TITLE	Plan and manage the control of weeds, pests and diseases	Learner's name
UAN REFERENCE	D/503/4370	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, manage, monitor and review the control of weeds, pests and diseases.		
Relationship to National Occupational Standards : CU 110		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1 Be able to plan control measures for weeds, pests and diseases	1.1 Justify the need for control measures.	For a named crop detail the potential problems, state control measures available, consider husbandry, environmental and financial implications. Link to crop protocols.
	1.2 Develop a crop and environmental protection plan	For the same crop produce a plan to control those problems warranting control along with most suitable methodology. Ensure that all involved in its delivery fully understand their responsibilities under health and safety, legislation and environmental regulations. Methods of protecting the wellbeing of bystanders and the general public must be included. Resources must be listed that include testing of application equipment, storage or chemicals and other harmful substances, operative training, Control of Substances Hazardous to Health (COSHH) assessments. define the role of specialist advisor
2. Be able to implement control measures	2.1 Monitor and modify control measures appropriately as problems change	Records of crop walking with critical thresholds of infestation and recommendations, agronomist reports. diary entries, witness statements
	2.2 Develop and maintain effective communication strategies and reporting procedures	Ongoing control recommendation supported by advisor recommendations, applications and operator records, crop assurance audit trails.

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## Unit 418

3	Be able to monitor and review control measures	3.1 Judge that work is carried out according to plan	The plan is used as a working document and will include detailed crop records that cover the life of the named crop from establishment to sale or end use. Regulations are complied with throughout.
		3.2 Review and evaluate that appropriate action is taken in the event of problems	Financial and environmental justification for planned and modified actions will exist in the form of calculations, conclusions, records discussions, advisor guidance. Sound, substantial and robust evidence is required.
		3.3 Revise the effectiveness of the plan	Comparative analysis of crop performance, efficacy of control measures both physical and financial. Sound, substantial and robust evidence is required
4.	Understand how to plan and manage the control of weeds, pests and diseases	4.1 Discuss the effect of weather and site conditions	Relate the effects on a specific crop in terms of weeds, pests and diseases stating predicted timings and foreseeable problems throughout the life of the crop. Describe management to minimise effects
		4.2 Explain advantages and disadvantages of integrated pest management	Demonstrate working knowledge and research of I.P.M in terms of rotations, life cycles, natural predators ref. L.E.A.F
		4.3 Explain the importance and options for sourcing independent specialist advice.	Limitations of own knowledge , new and emerging technology, highlight sources such as advisors, technical data and transfer, IT
		4.4 Discuss the importance of control measures and their effective implementation	Identify benefits i.e. higher yield, improved quality, easier harvesting, timeliness, improved margins, environmental to subsequent crops
		4.5 Explain public relationship protocols when implementing the control plan	Timely notification to those affected by control measures inc.consumers, bystanders, neighbours, walkers. Discuss grower responsibility under industries public image.

## Unit 419

TITLE	Manage the transportation of animals	Learner's name
UAN REFERENCE	H/503/4371	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan and manage the transportation of animals.		
Relationship to National Occupational Standards : CU117		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan and manage the transportation of animals	1.1 Develop and implement plans, specific to the species where appropriate	Consider the provision of feed and water, timing and distance of the journey, and contingency plans to cover breakdowns, accidents or animal related problems. Ensure procedures are compliant with animal movement regulations including the 6 day rule. Ensure stock is in the correct condition for their destination. Consider communication protocols.
	1.2 Critically compare alternative systems of handling and restraint for both safe loading and transportation	Relate to a specified species of animal. Include consideration of systems, facilities, health and safety, welfare and stress minimization, product assurance. Evaluate the benefits of permanent versus portable equipment
	1.3 Determine the system procedures that are important for good hygiene and biosecurity	Consider cleaning and disinfection, disposal of soiled material, isolation and mixing arrangements, the need for personal protective equipment, recording/inspection arrangements
	1.4 Ensure that plans offer good welfare standards and are in accordance with relevant legislation and codes of practice	Consider length of time in transit, provision of food and water, stocking densities in transit, ventilation, precautions against very high/very low temperatures, avoidance of fighting/bullying, minimizing stress, minimal delays once stock are loaded. Ensure compliance to the five freedoms defined by the Farm Animal Welfare Council



## Unit 419

2. Be able to monitor and evaluate the effectiveness of the transportation arrangements for animals	2.1 Justify the necessary recording and reporting arrangements	Compliance to the legal requirements: Animal Transport Certificates and Movement Licenses where required. Evaluate the reporting and inspection processes including external audit arrangements
	2.2 Monitor that all animal transportation methods are in accordance with the approved plan	Regular inspection of the transportation standard/arrangements, the fitness of the animals, competence of the person in charge of the vehicle, the arrangements on arrival at destination. Ensure adequate training. Rapid identification of problems and rectification
	2.3 Critically evaluate the effectiveness of the approved plan	Consider ageing equipment and obsolescence. Consider Trading Standards reports/inspections. Review of any problems and/or accidents. Evaluate alternative systems and developments/upgrades. Cost considerations. Incorporate compliance check to current and emerging legislation/codes of practice
3. Understand how to plan, manage, monitor and evaluate the transportation of animals	3.1 Describe the legislation and powers of authority relating to the movement of animals	Legislation: Animal Welfare Act 2006, Welfare of Animals Order 2006, Transport of Animals(Cleansing and Disinfection) Order 2003 Trading Standards Officers, Animal Health(formerly SVS) and Police powers to safeguard the welfare of animals and prevent contravention of the law, powers to advise, direct or serve notice, powers to inspect animals, powers to prevent a journey starting or continuing
	3.2 Describe the statutory paperwork and reporting procedures that must be adhered to	Animal Transporter Authorisation (farmers type 1, haulers type 2), Animal Transport Certificate (ATC), Animal Movement License, species specific movement documentation/passport, identification of animals and numbers to be transported. TB testing where applicable
	3.3 Explain the importance of animal movement controls	To ensure that: animals are transported without delay, the person in charge will take action to safeguard welfare, stress is reduced to a minimum, animals fit to travel, spread of disease is reduced, consumer interests are protected

## Unit 419

	3.4 State the common diseases for each species of animal being transported and describe how each is transmitted	Main concern is those diseases transmitted by contact or air borne e.g. for cattle: foot and mouth, blue tongue, tuberculosis
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## Unit 420

TITLE	Manage Emergencies and Incidents in the Land-Based Sector	Learner's name
UAN REFERENCE	Y/503/1595	
LEVEL	4	
CREDIT VALUE	15	
The aim of this unit is to provide learners with the knowledge, understanding and skills to manage emergencies and incidents in the land-based sector.		
Relationship to National Occupational Standards : CU141		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to manage incidents or emergencies in the land-based sector	1.1 Ensure that procedures are in place to deal with incidents and emergencies	There should be procedures in place to comply with Health and Safety legislation including Reporting of Injuries, Diseases and Dangerous Occurrences Regulation (RIDDOR), Environmental pollution, Notifiable diseases regulations, Fire, Flood, Tempest, Incidences of crime and other possible incidents and emergencies.
	1.2 Oversee the allocation of resources to manage an incident or emergency	The procedures above will contain a detailed assessment of resource adequacy with provision for review and maintenance/ renewal
	1.3 Take appropriate action in the event of an incident or emergency	Appropriate action directives detailed within procedures Reporting procedures
	1.4 Give full and accurate details of the incident or emergency to the emergency services of others that need the information	Describe emergency service briefing possibly within professional discussion Reports and reporting procedures. See DEFRA homepage legal services, HSE homepage legislation, <a href="http://legislation.gov.uk">legislation.gov.uk</a> , <a href="http://dft.gov.uk">dft.gov.uk</a>



## Unit 420

	1.5	Ensure that procedures are communicated to those who need to be informed	Provision within procedures for all involved to see and confirm understanding. Circulated to all involved.
	1.6	Ensure that those who need to know can use emergency equipment.	Provision within procedures to ensure that all needing to use equipment are trained in the equipments use and updated on a regular basis
	1.7	Maintain own safety whilst dealing with an incident or emergency	Role of coordinator clearly described in procedures including record of ongoing training and danger awareness training.
2. Understand how to manage an incident or emergency in the land-based sector	2.1	Discuss appropriate ways to communicate procedures and instructions to others	To be included in procedures, communication by mobile phone, contact details of all involved including emergency services.
	2.2	Explain the limits of own responsibility, authority and competence to deal with incidences and emergencies	Details on the role of all involved to be clearly stated in the procedures. Discuss with leader of emergency services at first opportunity. Witness statement.
	2.3	Evaluate the effectiveness of the procedures used in an incident or emergency	For an emergency or incident review the procedure with those involved including recommendations of the emergency services. The evidence could be the report, emergency services recommendations and the revised procedure.
3. Understand the procedures in place to deal with incidents and emergencies	3.1	Explain the procedures for dealing with incidents and emergencies.	The production of procedures, see 1.1, may demonstrate an understanding, further confirmation may need to be gained from professional discussion
	3.2	Explain the procedures for contacting the emergency services	Emergency service contact details should be found in the procedures 1.1 999, with other details to be found in web sites in 1.4.

## Unit 420

	3.3 State the details that should be recorded and reported.	Details as listed in information found on web sites as above, Reporting of Injuries, Diseases and Dangerous Occurrences Regulation (RIDDOR). Other sources can be used.
	3.4 Explain why these details should be recorded.	Improve management of incidents and emergencies. Reduce incidents and emergencies. To improve resources / equipment both in the immediate management situation and in the larger land-based sector. Insurance and litigious purposes.
4. Understand related legislative requirements involved in the management of incidents and emergencies	4.1 Explain the legal requirements relating to an incident or emergency	Using the incident or emergency described in the evidence in 2.3 researches the legal requirements, possibly using the appropriate web site/s in 1.4. Other sources can be used. Alternatively any other possible incident or emergency could be used to provide sufficient evidence for these criteria.

## Unit 420

TITLE	Manage Emergencies and Incidents in the Land-Based Sector	Learner's name
UAN REFERENCE	K/503/4372	
LEVEL	4	
CREDIT VALUE	15	
The aim of this unit is to provide learners with the knowledge, understanding and skills to manage emergencies and incidents in the land-based sector.		
Relationship to National Occupational Standards : CU141		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to manage incidents or emergencies in the land-based sector	1.1 Ensure that procedures are in place to deal with incidents and emergencies	There should be procedures in place to comply with Health and Safety legislation including Reporting of Injuries, Diseases and Dangerous Occurrences Regulation (RIDDOR), Environmental pollution, Notifiable diseases regulations, Fire, Flood, Tempest, Incidences of crime and other possible incidents and emergencies.
	1.2 Oversee the allocation of resources to manage an incident or emergency	The procedures above will contain a detailed assessment of resource adequacy with provision for review and maintenance/ renewal
	1.3 Take appropriate action in the event of an incident or emergency	Appropriate action directives detailed within procedures Reporting procedures
	1.4 Give full and accurate details of the incident or emergency to the emergency services of others that need the information	Describe emergency service briefing possibly within professional discussion Reports and reporting procedures. See DEFRA homepage legal services, HSE homepage legislation, <a href="http://legislation.gov.uk">legislation.gov.uk</a> , <a href="http://dft.gov.uk">dft.gov.uk</a>





## Unit 420

	1.5	Ensure that procedures are communicated to those who need to be informed	Provision within procedures for all involved to see and confirm understanding. Circulated to all involved.
	1.6	Ensure that those who need to know can use emergency equipment	Provision within procedures to ensure that all needing to use equipment are trained in the equipments use and updated on a regular basis
	1.7	Maintain own safety whilst dealing with an incident or emergency	Role of coordinator clearly described in procedures including record of ongoing training and danger awareness training.
2. Understand how to manage an incident or emergency in the land-based sector	2.1	Discuss appropriate ways to communicate procedures and instructions to others	To be included in procedures, communication by mobile phone, contact details of all involved including emergency services.
	2.2	Explain the limits of own responsibility, authority and competence to deal with incidences and emergencies	Details on the role of all involved to be clearly stated in the procedures. Discuss with leader of emergency services at first opportunity. Witness statement.
	2.3	Evaluate the effectiveness of the procedures used in an incident or emergency	For an emergency or incident review the procedure with those involved including recommendations of the emergency services. The evidence could be the report, emergency services recommendations and the revised procedure.
3. Understand the procedures in place to deal with incidents and emergencies	3.1	Explain the procedures for dealing with incidents and emergencies	The production of procedures, see 1.1, may demonstrate an understanding, further confirmation may need to be gained from professional discussion
	3.2	Explain the procedures for contacting the emergency services	Emergency service contact details should be found in the procedures 1.1 999, with other details to be found in web sites in 1.4.

## Unit 420

	3.3 State the details that should be recorded and reported	Details as listed in information found on web sites as above, Reporting of Injuries, Diseases and Dangerous Occurrences Regulation (RIDDOR). Other sources can be used.
	3.4 Explain why these details should be recorded	Improve management of incidents and emergencies. Reduce incidents and emergencies. To improve resources / equipment both in the immediate management situation and in the larger land-based sector. Insurance and litigious purposes.
4. Understand related legislative requirements involved in the management of incidents and emergencies	4.1 Explain the legal requirements relating to an incident or emergency	Using the incident or emergency described in the evidence in 2.3 researches the legal requirements, possibly using the appropriate web site/s in 1.4. Other sources can be used. Alternatively any other possible incident or emergency could be used to provide sufficient evidence for these criteria.

## Unit 421

TITLE	Develop, negotiate and agree proposals to offer land based services and products	Learner's name
UAN REFERENCE	K/503/4372	
LEVEL	4	
CREDIT VALUE	14	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to develop, negotiate and agree proposals to offer land-based services and products.		
Relationship to National Occupational Standards : CU 96		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to interpret specifications and evaluate capacity to act	1.1 Check the specification documents and identify any issues for your organisation	Analysis of a contract / tender document that your organisation could provide services of products for. Examine key areas such as machinery, expertise, labour you could provide. Consider financial, insurance, professional indemnity, compatibility with existing commitments.
	1.2 Evaluate the opportunities and constraints the work offers the organisation	Provide a synopsis of your organisations ability to meet the conditions of the contract/ tender. Areas such as qualifications, expertise, machinery, labour, seasonality should be considered along with methods of overcoming limiting factors. Consider the implications of tendering.
	1.3 Seek advice on areas of uncertainty or inconsistencies	Evidence provided of clarification from the contractor, and or external advice being sought. Include research material regarding consumer protect and the trade descriptions act. Cost analysis for these areas of resource shortfall. Justification to proceed or not.
	1.4 Plan the preparation of a suitable proposal that meets the required submission date	Calculations with assumptions to cover all preceding points. Use suitable guideline material stating source.
2. Be able to prepare proposals to offer services and products	2.1 Identify the resources required to achieve the contract	Inventory of all resources and timings. Consideration of capacities and capabilities



## Unit 421

	2.2	Evaluate the influence of external factors on the proposal	PESTLE analysis, Risk assessments, contingency arrangements for weather and other adverse factors
	2.3	Produce costings that will provide adequate profit margins	Accurate and reasonable cost benefits analysis. Include cash flow and finance costs. Examples of specialist advice. Sources of information to be stated and justified.
	2.4	Supply additional information required by the customer	Include experience and staff qualifications, contingency arrangements, ability to cover unforeseen difficulties, procedures to minimise the impact on neighbours and the environment
	2.5	Produce and submit proposals which meet the customer's requirements	Example(s) of submitted contract/ tender. Confirmation of acceptance from contractor.
3. Be able to negotiate proposals and agree services and product provision	3.1	Negotiate, clarify and agree responsibilities and procedures	Examples(s) of modified contract/ tender. witness statements
	3.2	Agree and confirm contracts prior to the start of work	Acceptance of contracts/ tender signed by contractor. witness statements
4. Understand how to develop, negotiate and agree proposals to offer services and products	4.1	Discuss the purpose of thoroughly inspecting and cross referencing specification documents	To reduce misunderstanding, operational shortcomings, and disagreements.  Aid the achievement of successful contract delivery
	4.2	Explain the organisational, legal, resource and ethical issues that might be involved in taking on particular work	For a service or product named above cover legal, insurance, social and environmental implications of taking on such a contract.

## Unit 421

	4.3	Identify the reasons for not taking on contracts even if the organisation has the capacity to carry them out	Not fulfilling customer satisfaction, detriment to existing customers, financial instability, risk exposure, size of contact, time constraints.
	4.4	Explain why post- proposal negotiations may be necessary and how to conduct them in an effective manner	To ensure contract or tender is legally safe, correct, meets your needs. Seek specialist or professional advice.
	4.5	Describe when it may be advisable to draw others in the negotiation to help achieve a successful outcome.	When issuing contracts or tenders for the first time or for unfamiliar work

## Unit 422

TITLE	Commission, monitor and evaluate contract work for the land-based sector	Learner's name
UAN REFERENCE	M/503/4287	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to commission, monitor, support and evaluate contract work for the land-based sector.		
Relationship to National Occupational Standards : CU 97		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to commission work to enable objectives to be met	1.1 Produce specifications in accordance with organisational requirements	A detailed description of work to be commissioned including specifications Work required, standard demanded, timing, legal, environmental and ethical compliance, limitations and restrictions, payment terms, licenses and permit requirements.
	1.2 Develop selection criteria and make available to potential contractors	Produce a contractor specification with a description of work offered conditions that have to be complied with, inc capacity, timing, expertise/qualifications legal and environmental compliance based on 1.1 Include a schedule by which the work will be monitored
	1.3 Use a commissioning/ tendering process	Evidence that the above work has been put out to tender either by public notice, copy of letters to chosen people. witness statements
	1.4 Accept a commission/ tender	Letter of confirmation to the successful contractor. Letter to unsuccessful contractors.
	1.5 Produce and issue a contract	Produce a contract or use an approved model contract that covers the conditions listed in 1.1. Clearly stating the responsibilities of both parties inc. specific arrangements such as licenses and permits and payment terms. Protects the rights of the consumer

## Unit 422

2	Be able to monitor and evaluate the progress of contract work against targets	2.1 Monitor and review the progress of work.	Documentation and or records that demonstrate the monitoring process as laid out in the schedule under 1.2. Changes must be justified and agreed by both parties. They may be supported by financial considerations and implications. Minutes of meetings. Witness statements
		2.2 Ensure the contract work complies with relevant legislation, regulations and guidelines.	Documentation and or records that regulations such as local authority planning, health and safety and other regulations are monitored and enforced either by the learner or an appointed and named person. Minutes of meetings
		2.3 Identify and record deviations and redefine the contract as necessary.	Evidence used in 2.1 above.
3.	Be able to support contractors to enable them to achieve objectives	3.1 Provide contractors with appropriate information	Regular meetings with contractors to discuss progress and deviations. Witness statements form contractors Lines of communication Record of information passed between both parties
		3.2 Develop an effective communication system with the contractors.	Minutes of regular and impromptu meetings. Witness statements for contractors Notes, emails, correspondence.



## Unit 422

4. Understand how to commission contract work	4.1 Explain why it is important to include information in relation to purpose, objectives, methods, legislation, outcomes, budgets, environmental and safety issues	To protect the rights of the consumer, to achieve organisational objectives. comply with legislation, regulations and codes of practice
	4.2 Explain the importance of establishing and maintaining good working relationships with contractors	To achieve organisational objectives, to create and maintain a positive working relationship, avoid conflict and improve productivity.
	4.3 Clarify why control systems are necessary	To maintain quality, keep the project on track and meet deadlines.
	4.4 Discuss the importance of accountability, openness and probity in the management of contract work	Create and maintain a productive working environment, build trust and confidence.
	4.5 Explain a contractors needs in terms of cash flow	Particularly important on extended projects where large amounts of resources/ supplies are provided by the contractor. Finance costs money and needs security. Contract completion may be delayed incases were cash flow impedes supply provision.
	4.6 Explain how contracts are commissioned and tenders are accepted	This may be demonstrated. If not then learner must explain the process. Include meeting organisational objectives, obtaining the most suitable contractor, complying with legislation and codes of practice. Achieving services that are time bound and cost effective.

## Unit 423

TITLE	Develop and review a Marketing Policy	Learner's name
UAN REFERENCE	R/503/1594	
LEVEL	4	
CREDIT VALUE	15	
Relationship to National Occupational Standards : CU 108		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Understand the role of marketing	1.1 Evaluate techniques used to market products and services in the sector	Learner can discuss a number of marketing techniques and select most suitable for named product / service. Market research, develop marketing mix, evaluation of marketing effectiveness
	1.2 Analyse the main principles of marketing	Personalised results of training or research notes. Learner can demonstrate most appropriate techniques for named product/ service. 4'Ps' Product, Price, Promotion, Place 7 'P' above + Physical layout (factory), provision for customer care, processes. Cover Branding, profit and loss and break even budgeting Understand customer needs and satisfy customer needs
	1.3 Assess risk factors associated with the marketing process	Risk analysis for named product / service that includes reliability, validity accuracy, product quality and availability, external factors
	1.4 Discuss potential constraints on resources used to carry out marketing activities	Potential constraints that cover physical, financial, legal and regulations see 4.1 below
2. Be able to develop a marketing policy	2.1 Identify target markets for the product or service	A policy that clearly identifies the product/ service and target market(s) Evidence that all possible marketing opportunities have been examined

## Unit 423

	2.2 Describe consumer groups, needs and benefits of using a product or service	The policy will clearly state target consumer groups, their needs and benefits. The importance of branding, special identity of the product or service will be discussed and concluded. Surveys, questionnaires, comparative sales trends. Market research data. See 3.2 below
	2.3 Identify cost effective ways in which to market products or services.	A detailed and justified cost effective marketing cost strategy. Alternative marketing strategies must be explored and cost evaluated.
	2.4 Identify a work schedule from product development to marketing.	A critical path analysis that clearly shows product development from the start to marketing. Include research, testing, time scale, staff development and training, specialist advice required.
	2.5 Identify resources needed to market a product or service	The critical path analysis produced above will also include the physical and financial resources and cost required over the expected life of the product or service. Examine the need for specialist advice and where to source it.
3. Be able to manage a marketing activity	3.1 Communicate the marketing policy to those involved with implementation.	Evidence will be provided that the marketing policy is communicated to all those involved in its implementation including advisors and financiers. Action minutes of meetings, emails, circulation lists, progress reports, results of tests, positive and negative customer feedback. Sales compared to target sales. Market place reports
	3.2 Describe ways in which to sell the product to enable most effective sales.	The monitoring process will include ongoing recommendations and adjustments to improve sales. Product placement, pricing, and advertising. Use of third parties or agents.
	3.3 Evaluate objectives, targets and criteria for successful marketing a product or service.	Projected sales targets and customer feedback will be used on a regular and ongoing basis to achieve objectives. Response to feedback. Actions taken to increase sales of margins.
	3.4 Analyse the importance of branding and special identity of products.	Market research, surveys to ascertain importance of branding versus pricing, value for money. Positioning of product in marketing hierarchy. Quality of product. Examine niche products.

## Unit 423

4. Understand the review process of marketing activities	4.1 Evaluate legal, regulatory and other constraints affecting marketing policy.	Research and guidance evidence, advisory support, professional protection. Trading standards guidance material, patent protection. Membership of trade organisations
	4.2 Analyse methods of communicating policy to those involved in implementation.	Documentation that shows regular review of the effectiveness of communication policy, see 3.1 above.
	4.3 Make recommendations for further development of the marketing policy	Evidence is provided that demonstrates that the marketing and communication policies are continually being updated to achieve business targets. Product sales are monitored and projections revised.

## Unit 424

TITLE	Manage information, knowledge and communications within the land based sector	Learner's name
UAN REFERENCE	T/503/4388	
LEVEL	4	
CREDIT VALUE	12	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to plan, manage, monitor and evaluate communications within the land-based sector.		
Relationship to National Occupational Standards : CU123		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan and manage information, knowledge and communications	1.1 Ensure staff have easy access to appropriate knowledge and information	Consider the legislative requirements of at least two job roles and identify how to ensure staff can access the appropriate knowledge and information associated with those tasks
	1.2 Ensure confidential information and knowledge are kept secure	Consider the obligations of an employer/line manager and the organisation's business code of practice/policy regarding data protection protocols.
	1.3 Ensure that information is made available in ways that are timely and cost effective	Explain how the methods used would ensure that relevant information has been made available and how to evidence the employee's level of understanding.

**Note:** this unit does not necessarily relate to using information or communication technology but may do if appropriate

## Unit 424

2. Be able to monitor and evaluate the effective planning and management of information, knowledge and communication	2.1 Ensure that the need for information and knowledge are continually reviewed	Identify the legislative requirements of a farm assurance scheme, stating how to ensure the knowledge of all staff can be continually updated List communication methods that can be used to assess that all staff have the relevant information needed to ensure the farms compliance.
	2.2 Evaluate stored information and update or destroy as appropriate	Considering the 8 principles of the Data Protection Act , identify procedures for: <ul style="list-style-type: none"> <li>• personal details of staff</li> <li>• staff appraisals.</li> </ul>
	2.3 Ensure that all information is stored in compliance with data protection legislation	Stating the Data Protection Act: describe how to implement the policy within a given agricultural organisation
3. Understand how to plan, manage and evaluate information, knowledge and communication	3.1 Describe the types of knowledge and information that needs to be shared in a given organisation and the likely benefits of doing so	Must include health and safety/ risk assessments in relation to all potential hazards/risks e.g. machinery, slurry pits etc. Must be communicated to both staff and visitors to the farm
	3.2 Critically appraise evidence of past experience and use as an aid to planning	Evaluate records of past experience with regard to suitability for purpose, managed outcomes, acceptability by staff, access and storage, legal compliance, appropriateness to assurance schemes
	3.3 Explain the protocols and procedures for managing confidential information and the importance of doing this	Referencing both the Freedom of Information Act 2000 and the Data Protection Act state the importance of following protocols and procedures when handling confidential information relating to members of staff.
	3.4 Describe where to seek specialist advice and support relating to knowledge management	Identify four aspects of an agricultural business and identify two appropriate organizations/ businesses where specialist advice can be obtained. Explain for each why they might be used as the chosen service provider.

## Unit 424

	3.5 Describe the types of people outside the organisation who can benefit from or contribute to the pool of knowledge and information	Identify how the managers and staff can contribute to good public relations and how consumers can benefit from information and knowledge direct from the producer. Evaluate the benefits of discussion groups and assess the importance of Continuous Personal Development (CPD) as a contributor to updating knowledge and information.
	3.6 Summarise the principles of data protection legislation	List the eight principles of the Data Protection Act

## Unit 425

TITLE	Plan and manage the development of those working in the land based sector	Learner's name
UAN REFERENCE	A/503/4389	
LEVEL	4	
CREDIT VALUE	15	
The aim of the unit is to provide the learner with the knowledge, understanding and skills to plan and manage the development of those working in the land-based sector.		
Relationship to National Occupational Standards : CU131		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1 Be able to identify, plan and implement personal development plans	1.1 Identify the development needs of all staff both as individuals and teams	Regular assessment based on observation of performance, achievement of targets, level of skill/knowledge, ability to work in teams. Also use appraisal discussions, including self assessment. Use third party assessment where available, appropriate and reliable. Take guidance from competent specialists. Ensure all assessments comply with organisational procedures
	1.2 Compare and contrast the needs of individuals with the strategic/operational objectives of the organisation and set priorities	Identify strategic and operational plans and resultant objectives/targets. Establish the organisation's priorities for skills development. Compare these to the needs of the individual
	1.3 Produce a development plan for all staff	Undertake "gap" analysis. Identify the preferred learning style of the individual. Identify suitable learning opportunities. Consider cost and time available. Produce a plan which is clear, relevant and has Specific Measurable Achievable Realistic and Timely (SMART) objectives. Ensure this fits the organisation's objectives. Must include consideration of team working skills



## Unit 425

	1.4	Implement the development plan and review regularly, agree remedial action where necessary	Regular review of the plan. Use feedback and other benchmarking techniques including self assessment. Review the effectiveness of the plan. Agree alternatives, introduce remedial action	
2.	Be able to assess performance	2.1	Discuss with staff the introduction/use of a performance appraisal system	Discuss the purpose and the role of the appraiser and appraise. Emphasise the need for fairness, confidentiality, equality of opportunity and an individual's right to appeal. Explain the importance of self appraisal. Recognise feedback from team members
		2.2	Implement a system of performance appraisal	Base on sufficient, valid and reliable performance information. Consider the importance of being a two way process and having sufficient uninterrupted time available .Evaluate the need for self appraisal Plan pre-declared processes/procedures, consistent for all. Ensure the appraisal is open and transparent and delivers meaningful and worthwhile outcomes
3	Understand how to identify, plan, and implement development needs and assess performance	3.1	Explain the importance of human resource development to the effectiveness of the business	Better skilled staff and greater awareness, higher motivation and team working, less disputes and conflict, reduced days of sickness, better staff retention. Should result in improved productivity and reduction of costs
		3.2	Describe how to establish development needs and how to present a development plan	Must clearly identify procedures and processes for establishing an individual's development needs, including self assessment. Establish ways in which valid information can be collected. Recognise the need for good record keeping. Must identify the objectives of the organization and the resultant priorities
		3.3	Discuss the various ways in which development needs may be met	Identify possible learning/development opportunities available e.g. training, seminars/workshops, self study, shadowing, discussion groups, visits. Use specialist /advice/support if appropriate, Identify preferred learning styles of an individual then match. Consider implications of time, resources and costs. Also consider timescale
		3.4	Explain the key underlying principles to effective performance appraisal	Must include self appraisal, be a rigorous, robust and valid process, be confidential, be a pre agreed/ declared process, be consistent, relevant and clear. Overall a fair and objective assessment. Must ensure that the process has credibility. Consider the need for an alternative appraiser system in larger organisations



## Unit 426\*

This unit has been replaced by unit 526. Learners registered before 1st July 2017 should use this unit. Learners registered after 1st July 2017 should use unit 526

TITLE	Manage own professional development in an organisation	Learner's name
UAN REFERENCE	L/600/9586	
LEVEL	3	
CREDIT VALUE	4	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to assess own goals and career development	1.1 Identify own career and personal goals	
	1.2 Assess how own career goals affect work role and professional development	
2. Be able to set personal work objectives	2.1 Agree SMART (Specific, Measurable, Achievable, Realistic and Time-bound) personal work objectives in line with work objectives	
3. Be able to produce a personal development plan	3.1 Identify gaps between objectives set, own current knowledge and skills	
	3.2 Produce a development plan	
4. Be able to implement and monitor own personal development plan	4.1 Plan activities identified in own development plan	
	4.2 Explain how to monitor and review own personal development plan	

## Unit 427

TITLE	Contract Documentation and Management for Land-based Industries	Learner's name
UAN REFERENCE	T/503/4391	
LEVEL	5	
CREDIT VALUE	15	
The aim of this unit is to provide the learner with the knowledge, understanding and skills to apply and manage contract documentation to land-based industries.		
Relationship to National Occupational Standards :		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Know the type of contract documents required for land-based projects	1.1 Identify the contract documents used in and-based contract procurement	The learner can identify and produce suitable model contracts/ clauses for named activity/ project, e.g. various tenancy agreements, share and contract farming agreements, agreements to offer numerous services, machinery sharing and hire agreements, various licenses offering rights of access and others
	1.2 Describe the relationship between documents	Learner can access and compare similar documents then select most suitable for named activity
2. Understand how works are specified in respect of standards and quality	2.1 Review the purpose of specification writing within a land-based sector	The learner can clearly describe in detail and written format the activity/ project requiring contract documentation.

	2.2 Discuss clause content of a specification for major work sections	The learner can select most appropriate clauses from selected guidance material that will protect their interests within the chosen activity in 2.1  Guidance material may be obtained from organisations such as NFU online, Business Link, Country Land Owners Association, Law firms, Tenant Farmers Association and other sources.
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## Unit 427

	2.3 Discuss relevant quality and standards within major project sector	The learner will be able to demonstrate the required quality and standards required in the activity named in 2.1 by the selected clauses. The assessment of this point of criteria can be covered by professional discussion
3. Understand provisions of the contract documents required for land-based projects	3.1 Compare the purpose and uses of different contract documents within the forms of contract	Evidence provided in 2.2 will provide the basis of professional discussion to confirm understanding of this point of criteria
	3.2 Analyse the relationship of different contract documents within the forms of contract	As for 3.1
	3.3 Explain how disputes arise and how they can be resolved	Justification of correct clause selection above to cover Poor communications, unfairness and inequality, unreasonable demands, force majeure.
4. Be able to apply the contract documents to all stages of a land-base project work	4.1 Prepare a complete specification for a land- based project	Presentation of final contract documentation for the named activity/project in 1.1 above will be sufficient evidence.
	4.2 Produce valid specification clauses to communicate design information to members of the project team	The contract documentation provided for 4.1 will be signed by all parties involved in its implementation to show their acceptance of all clauses contained in the documentation.

## Unit 428

TITLE	Prepare a plan for your business	Learner's name
UAN REFERENCE	J/500/4599	
LEVEL	3	
CREDIT VALUE	2	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Understand how to prepare a plan for your business	1.1 Present a clear case for your business and evaluate its potential for success	A viable business plan based on realistic physical and financial predictions. All assumptions to be shown.
	1.2 Identify and provide a case for short, medium and long term goals for your business, based on the current market position	Goals are achievable within time defined, compatible with business plan and based on current market position
	1.3 Explain how different parts of your business might affect each other, for example, how marketing and other hidden costs might affect your business	Explanation of the interaction and interdependency of parts of the business. Clarification of costs incurred over the life cycle of the enterprises e.g. finance and storage costs
	1.4 Select from a range of options the most suitable method to fund the business	Critical comparison of all funding options, egg mortgages, long term, and short term loans, secured or unsecured, supplier credit, family loans. Justification of selected options
2. Understand how to integrate the elements of your business plan	2.1 Set realistic targets and show how each part of your business will contribute to meet them	A full farm budget with critical point targets that includes gross margins and all overhead costs. Show Net farm Income and Management and Investment Income. All assumptions to be shown.

## Unit 428

	2.2 Describe how all aspects of your business will be funded and identify a budget for contingencies	A balance sheet that supports your business plan at the outset and through its development to meet targets set. Explain how additional funding could be raised to meet needs. The importance of realistic and achievable assumptions can not be overstated.
	2.3 Evaluate how relevant laws and regulations might affect your business plans	Consideration of the impact planning regulations, Health and Safety regulations. Taxation, employment law, environmental legislation, production protocols, road traffic legislation will have on the business. These must be discussed Sources of information identified.

## Unit 429

TITLE	Produce a plan for your business	Learner's name
UAN REFERENCE	M/500/4600	
LEVEL	3	
CREDIT VALUE	1	
Relationship to National Occupational Standards:		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Understand how to produce and present a plan for your business	1.1 Produce a business plan in a format that demonstrates robust operational and financial planning for your business	Plan based on realistic and achievable targets, with justified assumptions from stated sources. Produced to allow regular monitoring.
	1.2 Use the business plan to illustrate clearly how your operational and financial targets can be met	Clearly explained business synopsis.
	1.3. Present your business plan to others (such as financial backers) to enlist their support for your business	Assessor observation of presentation to interested parties that could include financiers, land owner/ agent, buyers. Witness statements.



## Unit 429

2. Understand how to use the business plan to support the continuing success of your business plan	2.1 Design a robust system to review and monitor your business plans for all parts of the business and to assess its continuing progress and success	Business plan designed to enable regular monitoring of physical and financial information at critical points.
	2.2 Describe how to communicate your business plan so that all people involved in your business are motivated to support you to meet its targets	Identification of all internal and external personnel involved in the successful implementation of the business plan. Include those listed in 1.3 above, with a rationale for their involvement.
	2.3 Explain how monitoring the business plan will be used to check continual compliance with relevant laws and regulations	Include compliance with taxation, inc VAT, census returns, employment law inc PAYE, environmental stewardship schemes

## Unit 430

TITLE	Make changes to improve a business	Learner's name
UAN REFERENCE	J/601/4382	
LEVEL	3	
CREDIT VALUE	4	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to plan of changes to improve the business	1.1 Collect and evaluate reliable information to identify changes needed for to improve the business	All relevant data collection methods for yields, returns, quality, inputs physical and financial, overhead costs. Benchmarking/ comparative analysis used to identify areas for improvement. Results of those changes
	1.2 Anticipate problems that may arise in achieving the changes and explain how they could be addressed	Examples of timely interventions and the anticipation of problems
	1.3 Estimate the resources needed to introduce the improvements	Partial budgets for timely interventions and anticipation of problems
	1.4 Analyse the potential risks and evaluate the cost effectiveness of incorporating the changes into the business	Business risk assessment for the changes made above.

## Unit 430

2. Be able to persuade relevant people to support the proposed changes	2.1 Evaluate the implications of the feedback on the proposed improvements from relevant people (for example, business advisors, staff, customers, suppliers)	Results of changes made, responses from all internal and external personnel involved. Further action taken as a result of feedback.
	2.2 Develop appropriate ways to inform, motivate, encourage and get the support of these people	Explanation of management techniques employed to meet all the assessment criteria. Reports, progress reports, action minutes, updates, meetings, incentives, penalties.
	2.3 Specify and allocate the resources and support necessary for the changes to be successful	Physical and financial resources defined. Rationale explained for successful implementation
3. Be able to develop a system for monitoring and evaluating the impact of the changes	3.1 Develop a plan to monitor and analyse the changes as they are implemented	A system of monitoring and measuring all implications of the changes made
	3.2 Analyse problems arising and develop solutions for them	The above system is used to identify and find solutions for problems identified
	3.3 Continue to monitor and review the effects of the changes and make further proposals for improvements	The above system is used as an ongoing document identifying and solving problems as they arise

## Unit 431

TITLE	Estimate financial needs of your business	Learner's name
UAN REFERENCE	H/500/4593	
LEVEL	3	
CREDIT VALUE	3	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Evaluate financial options to fund your business	1.1 Calculate all the potential costs associated with setting up your business	Full business costs that include outputs, direct and indirect costs and cost of finance.
	1.2. Assess the benefits and drawbacks of different ways of funding your business	Pros and Cons analysis of all possible sources of funding
	1.3 Choose the most viable and suitable ways to finance your business	Calculations comparing the overall costs of the investment for all sources identified above.
2. Understand how to monitor income and expenditure against your business objectives	2.1 Prepare forecasts, estimates and projections on all aspects of income and expenditure for your business, including producing a financial break even analysis	Fully costed budget that covers all sources of income and expenditure. Supported by detailed assumptions. Break even point to be calculated.

## Unit 431

	2.2	Set business and financial objectives which are realistic, achievable and measurable	Assumptions used above are justified. Systems in place to monitor business performance.
	2.3	Choose the systems that will be used to keep appropriate and efficient financial records for your business	Proprietary or self generated system is demonstrated or used
3. Understand how to monitor profit and loss for your business	3.1	Calculate realistic profit margins for your business	Periodic profit and loss accounts produced at critical stages of the product cycle, or as appropriate for the successful management of the business. Can be calculated from projections in 2.1 above
	3.2	Calculate the projected gross and net profit for a minimum 12 month trading period	Gross and net margins produced from budget or from monitored business performance.
	3.3	Explain how profit and loss statements and balance sheets can help to monitor the financial success of your business each year	Discuss profit and loss and balance sheet trends over one year and longer. Demonstrate or question understanding of balance sheets and flow of funds Examine proportional analysis, return on capital employed, and changes in balance sheet ratios that include currency, liquidity, gearing and equity.

## Unit 432

TITLE	Improve the Financial Performance of a Business	Learner's name
UAN REFERENCE	J/601/5791	
LEVEL	3	
CREDIT VALUE	4	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to assess the financial state of the business	1.1 Research different ways to measure the success of the business	Various benchmarking comparisons of unit costs against comparative businesses and previous performance of the business. Proportional analysis. Net farm income, Management and Investment income and balance sheet trends.
	1.2 Use appropriate measures to make a realistic estimate of the financial state of the business	Use above techniques to carry our comparative analysis. May be supported by advisors and financiers Witness statements
	1.3 Assess the impact of financial targets on productivity, sales and non sales revenue, costs and spending	Explanation of how production, asset values and expenditure are controlled by financial target. Exploitation of limiting factors

## Unit 432

2. Be able to prepare reliable financial forecasts for the business	2.1 Gather information to prepare a financial forecast to help plan the business and measure	Information systems that contain all physical and financial information needed to make an accurate and measurable budget.
	2.2 Produce accurate forecasts for particular accounting periods and present them in an appropriate way	Budgets based on gathered information including previous performance if available. To be presented in a format that can be monitored and is acceptable to financiers and advisors.
	2.3 Evaluate the reliability and validity of the information being used for financial forecasting	Information used in budgeting is cross checked for reliability and validity.
3. Be able to produce a plan to improve the financial performance of the business for different scenarios	3.1 Work out the difference between gross and net profit, basic profit and loss, high and low forecasts	Demonstrated by calculations of profit and loss as well as gross and net profits from data provided or from data generated within the business. Then to produce high and low forecasts based on information used previously within this unit.
	3.2 Use this information to analyse the profit margins for different products and markets	Gross and net margins produced for different products and markets.
	3.3 Produce a financial plan that includes an assessment of the financial state of the business, financial forecasts for different scenarios and targets to improve the financial performance of the business	Business plan based on work carried out previously in this unit.

## Unit 432

	3.4 Research different ways to reduce the various costs of the business and make plans for different contingencies	Demonstrate rigorous use of benchmarking and comparative analysis techniques, involvement with discussion groups and evaluation of published research material.
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## Unit 433

TITLE	Make a cash flow forecast	Learner's name
UAN REFERENCE	A/500/4597	
LEVEL	3	
CREDIT LEVEL	2	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Understand how to set cash flow targets in line with financial plans for your business	1.1 Prepare annual cash flow targets with set dates (usually monthly) in line with your business' financial plans	Cash flow budget from business plan or budget for business. All assumptions shown and justified with predicted timings to allow a monthly forecast. Produced to allow monthly monitoring with deviances explained.
	1.2 Analyse trends (e.g. seasonal, sector or political changes) and evaluate how they might impact on cash flow at any point in the year	Use evidence from 1.1 to examine trends as they develop.
	1.3 Calculate the money that is likely to be available at different times in a one year period	Cash flow is used to predict working capital required during the year.  Witness statement for advisor or financier

## Unit 433

2. Understand how to set up systems to monitor cash flow forecasts for your business	2.1 Produce cash flow forecasts and calculate potential high and low cash flow rates	As 1.3 above
	2.2 Choose and set up an effective system for monitoring cash flow for your business	Use system chosen in 1.1 above. Electronic system either proprietary or learner devised.
3. Understand how to control income and expenditure shortfalls for your business	3.1 Assess how to control sources and uses of cash for your business in order to minimise potential cash shortfalls	Explanation and justification of how short falls will be financed e.g. release of liquid assets or delays in procurement.
	3.2 Assess and calculate how failure to meet external targets, deadlines or legal requirements might affect cash flow or damage your business	Explanations of the dangers of not meeting financial targets that include extra interest charges, damage to credit rating, penalties, lowering of financier confidence, poor supplier relationships, foreclosures, insolvency.
	3.3 Accurately forecast cash shortfalls and plan the actions that need to be taken to address them	Monitored cash flows used to foresee emerging shortfalls with planned actions or actions taken.

## Unit 434

TITLE	Invest Capital in a Business	Learner's name
UAN REFERENCE	L/601/5792	
LEVEL	3	
CREDIT LEVEL	2	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to prepare to invest capital in a business	1.1 Use reliable sources of advice to identify investment targets and costs (for example, business associates, banks, business or financial advisers)	Evidence of research for define investment target e.g. land, buildings, machinery or livestock. Advice taken. Investment cost in terms of interest and capital repayment period.
	1.2 Estimate the investment targets that might be achieved (for example, return on capital, improved profitability or productivity)	Justification and rationale for investment, define business benefits. Calculations showing return on capital over the period of investment, changes in balance sheet ratios.
	1.3 Assess the sources of funding that are possible (for example, overdraft or loans)	Sources to be identified, clarifying interest rates and pay back period. Discuss dangers of using overdraft facilities to fund medium to long term projects.
	1.4 Explain why opportunity cost analysis is an important part of the decision-making process for the business	Worked example of opportunity costs analysis followed by justification to proceed or not.

## Unit 434

	1.5	Calculate the investment costs including capital costs, interest rates on loans, running costs and depreciation	For a named investment calculate the total cost of borrowing as required within the assessment criteria.
2. Be able to assess the risks of making an investment in a business	2.1	Compare benefits and risks of different ways of making capital investments	For a named investment justify decision based on business benefit versus risk. Calculations and assumptions to be shown.
	2.2	Assess any potential problems that might arise during the period of investment and explain how they can be addressed	Using the scenario above expand the risks and make suggestions how they could be managed.
	2.3	Analyse any uncertainties there may be in different investments (for example, fall in sales, increased costs and their effects on profit margins)	Using the same scenario, or another investment opportunity show how budgeting allows for uncertainties listed in the assessment criteria
3. Be able to assess the impact of a capital investment on a business	3.1	Assess the return on capital for an investment (for example, by forecasting the possible high or low performance of an investment)	Partial budgets for actual investments or scenarios used previously in this unit to show returns on capital at varying levels of performance.
	3.2	Assess how the investment will affect revenue, expenses and cash flow over the investment period	Cash flow produced to cover the period of the investment. This may be produced as a partial budget cash flow providing all direct and indirect costs involved with the investment are considered and documented.

## Unit 435

TITLE	Recruit staff in own area of responsibility	Learner's name
UAN REFERENCE	T/600/9633	
LEVEL	5	
CREDIT VALUE	4	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to review human resource requirements to meet business objectives in own area of responsibility	1.1 Examine the human resources required to meet objectives in own area of responsibility	
	1.2 Identify gaps between current and required human resources to meet objectives	
	1.3 Assess the options for human resource requirements to meet objectives	

## Unit 435

2. Understand the importance of ensuring that recruitment and selection processes meet legal, regulatory, ethical and social requirements	2.1 Explain how to ensure recruitment and selection processes are fair	
	2.2 Explain how to ensure that legal requirements, industry regulations, organisational policies and professional codes are met	
	2.3 Explain when to seek specialist expertise throughout the recruitment process	
3. Be able to participate in the recruitment and selection process	3.1 Consult with relevant others to produce or update job descriptions	
	3.2 Agree with colleagues the stages in the recruitment and selection process for identified vacancies	
	3.3 Identify the methods and criteria that will be used in the recruitment and selection process	

## Unit 435

4. Be able to evaluate the recruitment and selection process and identify improvements for the future.	4.1	Assess and select candidates using agreed methods and criteria.	
	4.2	Evaluate the recruitment and selection methods and criteria used in own area of responsibility	
	4.3	Identify ways of improving future recruitment and selection	

## Unit 436

TITLE	Plan, allocate and monitor work in own area of responsibility	Learner's name
UAN REFERENCE	H/600/9674	
LEVEL	4	
CREDIT LEVEL	5	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to produce a work plan for own area of responsibility	1.1 Explain the context in which work is to be undertaken	
	1.2 Identify the skills base and the resources available	
	1.3 Examine priorities and success criteria needed for the team	
	1.4 Produce a work plan for own area of responsibility	
2. Be able to allocate and agree responsibilities with team members	2.1 Identify team members' responsibilities for identified work activities	
	2.2 Agree responsibilities and SMART (Specific, Measurable, Achievable, Realistic and Time-bound) objectives with team members	



## Unit 436

3. Be able to monitor the progress and quality of work in own area of responsibility and provide feedback	3.1 Identify ways to monitor progress and quality of work	
	3.2 Monitor and evaluate progress against agreed standards and provide feedback to team members	
4. Be able to review and amend plans of work for own area of responsibility and communicate changes	4.1 Review and amend work plan where changes are needed	
	4.2 Communicate changes to team members	

## Unit 437

TITLE	Manage a budget for own area or activity of work	Learner's name
UAN REFERENCE	A/600/9695	
LEVEL	5	
CREDIT LEVEL	7	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to prepare a budget for own area of responsibility	1.1 Evaluate information on resource requirements for own area of activity or work	Job description defining responsibilities. Extensive and justified schedule of resources with costs for a defined period for the business, enterprise, machinery in the case of a machinery manager or any other area of management.
	1.2 Produce a draft budget	Draft budget.
	1.3 Communicate the final budget with relevant stakeholders	Final budget is prepared and presented to stakeholders. Ideally observed by assessor. Stakeholder feedback. Action minutes , Witness statements.
2. Be able to manage a budget	2.1 Analyse variances between planned and actual expenditure	Final budget (1.3) is produced to facilitate regular monitoring at weekly, monthly or quarterly intervals. Reports highlight variances and critically examine reasons for variance.
	2.2 Provide information on performance to relevant stakeholders	Monitored budget and reports that have been circulated to stakeholders (to could include business owner, managing director, advisors, accountants, financiers, line manager). Evidence of feedback.
	2.3 Explain how to take corrective action within the limits of own authority, in response to budget variances and developments	Modifications defined and made following presentation to and feedback from stakeholders, these made within own area of responsibility.

## Unit 437

	2.4 Explain proposed revisions to budget and obtain agreement where actions are beyond the scope of own authority	Explanation of proposed revision and approval to change the budget. Witness statement from relevant manager/ stakeholder.
3. Be able to review budget management performance	3.1 Review performance against budget	Evidence of continued budget monitoring over time, see 2.1 above
	3.2 Assess improvements for future budget planning and management	Proposals to improve budget management by reflection on previous performance.
	3.3 Monitor budget performance and implement changes within the limits of own authority or obtain agreement	Explanation and justification of budget management changes made as a result of budget monitoring. Written approval from relevant stakeholder of line manager when required. Witness statement

## Unit 438\*

TITLE	Manage physical resources	Learner's name
UAN REFERENCE	K/600/9711	
LEVEL	4	
CREDIT LEVEL	3	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Understand the importance of sustainability when using physical resources	1.1 Explain the importance of using sustainable resources	
	1.2 Explain the potential impact of resource use on the environment	
	1.3 Explain how to use resources effectively and efficiently	
	1.4 Describe actions one can take to minimise any adverse environmental impact of using physical resources	
2. Be able to identify resource requirements for own area of responsibility	2.1 Consult with colleagues to identify their planned activities and corresponding resource need	
	2.2 Evaluate past resource use to inform expected future demand	
	2.3 Identify resource requirements for own area of responsibility.	
3. Be able to obtain required resources for own area of responsibility	3.1 Submit a business case to procure required resources	
	3.2 Review and agree required resources with relevant individuals	
	3.3 Explain an organisation's processes for procuring agreed resources.	
	4.1 Monitor the quality of resources against required specifications	

4. Be able to monitor and review the quality and usage of resources in own area of responsibility	4.2 Identify differences between actual and planned use of resources and take corrective action	
	4.3 Analyse the effectiveness and efficiency of resource use in own area of responsibility	
	4.4 Make recommendations to improve the effectiveness and efficiency of resource use.	

## Unit 439\*

This unit has been replaced by unit 539. Learners registered before 1st July 2017 should use this unit. Learners registered after 1st July 2017 should use unit 539.

TITLE	Make effective decisions	Learner's name
UAN REFERENCE	F/600/9715	
LEVEL	3	
CREDIT LEVEL	3	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to identify circumstances that require a decision to be made	1.1 Explain the circumstances requiring a decision to be made	
	1.2 State the desired objective(s) for making a decision	
	1.3 Establish criteria on which to base the decision, in line with own organisation.	
2. Be able to collect information to inform decision-making	2.1 Identify information needed to inform the decision-making process	
	2.2 Communicate with stakeholders affected by the decision	
	2.3 Explain how to inform stakeholders about the decision-making process.	
3. Be able to analyse information to inform decision-making	3.1 Identify information for validity and relevance to the decision-making process	
	3.2 Analyse information and against established criteria	
4. Be able to make a decision	4.1 Apply decision-making technique(s) to determine a decision	
	4.2 Explain the decision made in line with desired objectives	

	4.3 Communicate the decision taken to relevant stakeholders.	
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## Unit 440

TITLE	Procure supplies	Learner's name
UAN REFERENCE	L/600/9734	
LEVEL	3	
CREDIT LEVEL	2	
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to identify requirements for supplies	1.1 Select colleagues to agree requirements for supplies	
	1.2 Produce a specification for supply requirements	
2. Be able to evaluate suppliers that meet identified requirements	2.1 Identify suppliers that meet resource, organisational and legal requirements	
	2.2 Evaluate suppliers against requirements	
3. Be able to select suppliers and obtain supplies	3.1 Select supplier(s) that best meet requirements	
	3.2 Explain how to agree with the contractual terms with selected supplier(s).	
4. Be able to monitor supplier performance	4.1 Identify how to monitor supplier performance and delivery against agreed contractual terms	
	4.2 Explain the procedure for dealing with breaches of contract	



## Unit 526\*\*

This unit has replaced unit 426. Learners registered before 1st July 2017 should use unit 426. Learners registered after 1st July 2017 should use this unit

TITLE	Manage own professional development within an organisation	Learner's name
UAN REFERENCE	A/615/8558	
LEVEL	3	
CREDIT VALUE	4	
<p>The aim of this unit is about learners managing own professional development in order to achieve work objectives, career and personal goals.</p> <p>Relationship to National Occupational Standards: This unit is linked to Council for Administrative Management NOS: M&amp;LA2 Manage your own resources and professional development</p>		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to assess own career goals and personal development	1.1 Identify career and personal goals	
	1.2 Assess how own career goals affect work role and professional development	
2. Be able to set personal work objectives in line with organisational objectives	2.1 Agree SMART (Specific, Measurable, Achievable, Realistic and Time-bound) personal work objectives in line with work objectives	
3. Be able to produce a personal development plan	3.1 Identify gaps between objectives set and own current knowledge and skills	
	3.2 Produce a personal development plan	
4. Be able to implement and monitor own personal development plan	4.1 Produce a plan for activities identified in personal development plan	
	4.2 Explain how to monitor and review own personal development plan	

## Unit 538\*\*

This unit has replaced unit 438. Learners registered before 1st July 2017 should use unit 438. Learners registered after 1st July 2017 should use this unit.

TITLE	Manage physical resources	Learner's name
UAN REFERENCE	T/615/8560	
LEVEL	4	
CREDIT VALUE	3	
<p>This unit is about learners considering the physical resources required to carry out planned activity and ensuring they identify, obtain and plan their use effectively. Learners will also be considering the importance of using sustainable resources.</p> <p>Relationship to National Occupational Standards : This unit is linked to NOS MSCE8</p>		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Understand the importance of sustainability when using physical resources	1.1 Explain the importance of using sustainable resources	
	1.2 Explain the potential impact of using resources on the environment	
	1.3 Explain how to use resources effectively and efficiently	
	1.4 Describe actions individuals can take to minimise any adverse environmental impact of using physical resources	
2. Be able to identify resource requirements for own area of responsibility	2.1 Consult with colleagues to identify their planned activities and corresponding resource needs	
	2.2 Evaluate past resource use to inform expected future demand	
	2.3 Identify resource requirements for own area of responsibility	
	3.1 Produce a business case to procure required resources	

3. Be able to obtain required resources for own area of responsibility	3.2 Review and agree required resources with relevant individuals	
	3.3 Explain an organisation's processes for procuring agreed resources	
4. Be able to monitor and review the quality and usage of resources in own area of responsibility	4.1 Monitor the quality of resources against required specifications	
	4.2 Identify differences between actual and planned use of resources and take corrective actions where necessary	
	4.3 Analyse the effectiveness and efficiency of resource use in own area of responsibility	
	4.4 Make recommendations to improve the effectiveness and efficiency of resource use.	

## Unit 539\*\*

This unit has replaced unit 439. Learners registered before 1st July 2017 should use unit 439. Learners registered after 1st July 2017 should use this unit.

TITLE	Make effective decisions	Learner's name
UAN REFERENCE	K/615/8555	
LEVEL	3	
CREDIT LEVEL	3	
The aim of this unit is about developing learners understanding of the process of decision-making, identifying and analysing information to enable them to make a final decision.		
Relationship to National Occupational Standards: n/a		

Learner Outcomes	Assessment Criteria	For inserting direct evidence or referencing to where the evidence can be found
The learner will:	The learner can:	
1. Be able to identify situations where a decision needs to be made	1.1 Explain the situation requiring a decision to be made	
	1.2 Outline the objective(s) for making a decision	
	1.3 Establish criteria on which to base the decision.	
2. Be able to gather factual information to inform the decision-making	2.1 Identify factual information required to inform the decision-making process	
	2.2 Explain the process of informing stakeholders about the decision-making process	
	2.3 Communicate with all stakeholders affected by the decision.	
3. Be able to analyse valid information to inform decision-making	3.1 Identify relevant and valid information to inform the decision-making process	
	3.2 Analyse information and against established criteria.	
4. Be able to make a decision	4.1 Apply decision-making technique(s) to determine a decision	

	4.2	Explain the decision made in line with objectives	
	4.3	Communicate the decision to relevant stakeholders.	

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## Useful contacts

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