

Training contents to become a professional shepherd

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PARTNERS



Landwirtschaftskammer
Niedersachsen



HBLFA
Raumberg-Gumpenstein
Landwirtschaft



www.eu4shepherds.eu

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List of modules common to all countries

The curricula for the training of shepherds, which has been developed within the project, consists of 11 modules. These modules cover the knowledge that a shepherd should know.

The 11 modules are:

1. Knowledge of the environment, habitat management and ecosystem services.
2. Animal management.
3. Risk management and safety for shepherds.
4. Legal requirements.
5. Breed selection.
6. Livestock protection.
7. Animal welfare.
8. End use/business goals and processing (milk, wool, meat). Local food production.
9. Marketing.
10. Communication.
11. Technology (GPS, satellite technologies, apps, digitalization, ...)

These modules are available on the training platform in the different languages of the project countries: <https://www.eu4shepherds.eu/content/training-platform>

The contents are adapted to the conditions and particularities of each country.



Content of modules in Spain



Module title

1. Animal management

Contents

- 1.1. Herd management
 - Natural behavior of sheep
 - Instruments for herd management: dogs, bellwether, fencing, penning/hurdling
 - Programming mating and lambing
 - Documentation
 - Obligational vaccination and deworming
 - Select adequate breed for your aims and breeding conditions
 - Define management measure according to the system: extensive, long or short distance transhumance, etc.
- 1.2. Feeding and botanical knowledge
 - Physiological conditions of sheep
 - Nutritional needs of sheep: access to water, feeding schedule
 - Poison plants, roots, etc.
 - Intelligent and sustainable use of existing natural resources
- 1.3. Health and hygiene and etnoveterinary. First aid to livestock
 - Recognize symptoms of diseases
 - Natural remedies
 - Hoof care
- 1.4. Sheep's keeping and housing
 - Housing systems depending on geographic and climatic conditions

Additional information for each topic (links)

1. <https://www.youtube.com/watch?v=B96uYOI-Fwo>
2. BOE.es - DOUE-L-1991-80143 Directiva del Consejo, de 28 de enero de 1991, relativa a las normas de policía sanitaria que regulan los intercambios intracomunitarios de animales de las especies ovina y caprina.
3. <https://www.miteco.gob.es/es/biodiversidad/temas/politica-forestal/vias-pecuarias/default.aspx>
4. <https://www.youtube.com/channel/UCfEB8DwFkGsfbtVBeltJurA/featured>
5. <https://www.fundacionmontemediterraneo.com/es/12-descargas>



6. <https://liveadapt.eu/publicaciones/?skw=Antiparasitarios+Alternativos&orderby=date&order=desc>
7. <https://www.elika.eus/wp-content/uploads/sites/10/2019/11/Maria-Ancin-INTIA.pdf>
8. <https://trashumanciaynaturaleza.org/wp-content/uploads/2021/05/Redileo-para-el-control-del-matorral.pdf>
9. Etnoveterinaria y Etnobotánica.
<https://www.fundacionmontemediterraneo.com/es/12-descargas>
10. <https://trashumanciaynaturaleza.org/video-sobre-el-proyecto-dehesas-y-montados-en-la-peninsula-iberica>
11. https://www.mapa.gob.es/ministerio/pags/Biblioteca/Revistas/pdf_Ferti%2FFerti_2006_23_63_66.pdf
12. <http://polired.upm.es/index.php/pastos/article/view/1149>
13. http://www.jcyl.es/web/jcyl/AgriculturaGanaderia/es/Plantilla100Detalle/1131977209076/_/1248677990091/Redaccion
14. <https://goovinnova.org/download/manual-de-trashumancia-del-ganado-ovino/>

Learning outcomes/competences

- Keep a healthy and sustainable flock
- Produce an animal health plan
- Comply with legal requirements

Module title

2. Risk management and safety for shepherds

Contents

A shepherd should have available:

- First Aid Kit in the housing
- Communication facilities (mobile phone, satellite connection):
- Possibility to call for help if necessary for psychological support to overcome loneliness in the mountains
- Proper clothing (adequate shoes, rainwear, warm clothes, hut/cap)
- Knowledge about dangerous animals (snakes, insects, scorpions)
- Safe housing: intruding animals, lightning strike, etc.
- Knowledge about other possible dangers: meteorological, geological
- Insurance/health care facilities



Additional information for each topic (links)

1. <https://www.fundacionmontemediterraneo.com/es/p/especie-del-mes/pag/5#specie-1>
2. <https://www.barrabes.com/blog/consejos/2-10240/telecomunicaciones-emergencia-montana-como-comunicarse>
3. [Telecomunicaciones de emergencia en la montaña: cómo comunicarse en zonas sin cobertura de telefonía móvil - Barrabes.com](#)

Learning outcomes/competences

- Awareness of health and safety procedures
- Applying legal standards
- Ability to recognise and avoid risk

Module title

3. Legal requirements

Contents

- Labor conditions – contract, insurance, health care
- Concerning livestock breeding (sanitary and agrarian authorities)
- Possible certifications and subsidies
- Transport or use of livestock trails
- Documentation: inspections (sanitary, safety, hygiene)
- Ecologic and or conservation status of the pasture land/mountain pastures

Additional information for each topic (links)

1. <https://www.boe.es/buscar/doc.php?id=DOUE-L-2018-80995>
2. <https://goovinnova.org/download/manual-de-trashumancia-del-ganado-ovino/>
3. http://www.jcyl.es/web/jcyl/AgriculturaGanaderia/es/Plantilla100Detalle/1131977209076/_/1248677990091/Redaccion
4. <https://training.eu4shepherds.eu/sites/default/files/document/Produccion%20de%20carne%20ovina.pdf>

Learning outcomes/competences



- Understanding and complying with the minimum legal standard to keep sheep

Module title

4. Breed selection

Contents

- 4.1. Analysis of characteristics of the different breeds concerning
 - feed necessities
 - production aims
- 4.2. Adequate breed for
 - meteorological, geological conditions
 - production and management system
 - capacity and ability for resilience
- 4.3. Genetic heritage of different breeds

Additional information for each topic (links)

1. <https://www.youtube.com/channel/UCfEB8DwFkGsfbtVBeltJurA/featured>
2. [https://www.bing.com/search?q=¿Conoce+las+distintas+razas+de+ovino+que+hay+en+España%3F+%7C+Agronews+Castilla+y+León+\(agronewscastillayleon.com\)&cvid=594024db0d9d48f999209ff0684548ea&aqs=edge..69i57.2455j0j1&pglt=41&FORM=ANSPA1&PC=U531](https://www.bing.com/search?q=¿Conoce+las+distintas+razas+de+ovino+que+hay+en+España%3F+%7C+Agronews+Castilla+y+León+(agronewscastillayleon.com)&cvid=594024db0d9d48f999209ff0684548ea&aqs=edge..69i57.2455j0j1&pglt=41&FORM=ANSPA1&PC=U531)
3. [Catálogo Oficial de Razas de Ganado de España - Especie ovina y especie caprina - Oviespaña \(oviespana.com\)](http://Oviespaña (oviespana.com))
4. [Razas ovinas de España - Gestión Agroganadera \(gestionagroganadera.com\)](http://Gestión Agroganadera (gestionagroganadera.com))
5. [Razas de ovejas en España y su localización \(okdiario.com\)](http://okdiario.com)
6. [Catálogo oficial de razas \(mapa.gob.es\)](http://mapa.gob.es)

Learning outcomes/competences

- Acquire the ability to choose the appropriate breed for the environment and the business goal.



<p>Module title</p> <p>5. Livestock protection</p>
<p>Contents</p> <p>5.1. Protection from:</p> <ul style="list-style-type: none"> • Diseases • Predators • Meteorological effects • Geological threats <p>5.2. Health and sanitary measures</p> <p>5.3. Defense mechanisms: fences, dogs, housing</p> <p>5.4. Surveillance and observation</p> <p>5.5. Knowledge about symptoms of oncoming dangers (thunderstorm, predators, etc.)</p> <p>5.6. Knowledge about disease and illness symptoms</p> <p>5.7. Dog training</p> <p>5.8. Fencing</p>
<p>Additional information for each topic (links)</p> <ol style="list-style-type: none"> 1. https://youtu.be/eNUGLzRdEBU 2. https://caninaleon.com/ 3. https://goovinnova.org/download/manual-de-trashumancia-del-ganado-ovino/ 4. https://liveadapt.eu/publicaciones/?skw=Antiparasitarios+Alternativos&orderby=date&order=desc 5. https://www.mapa.gob.es/es/ganaderia/temas/sanidad-animal-higiene-ganadera/sanidad-animal/zoonosis-resistencias-antimicrobianas/zoonosis.aspx 6. https://servicio.mapa.gob.es/en/ganaderia/temas/sanidad-animal-higiene-ganadera/programavigilanciaboc2023-2030_tcm38-639976.pdf 7. https://iiad.tamu.edu/wp-content/uploads/2011/09/SheepGoat_FAZD.pdf 8. https://www.youtube.com/watch?v=GC_CbxA8yOQ
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> • Acquire the ability to recognize and mitigate dangers and discomfort • Have the ability to choose the correct technique or remedy to ensure protection • Have the ability to handle and train dogs correctly • Understand sufficient fencing requirements



<p>Module title</p> <p>6. Animal welfare</p>
<p>Contents</p> <p>According to International standards and definitions, animal welfare includes:</p> <ul style="list-style-type: none"> • Health of livestock • Convenience/commodity of the livestock • Species-appropriate conditions • Well fed: in quality and quantity • Conditions that allow to express innate behavior • Not exposed to unpleasant states, such as pain, fear or distress • Adapt to ethical/moral, cultural and religious aspects (halal, kosher, organic certified, etc.)
<p>Additional information for each topic (links)</p> <ol style="list-style-type: none"> 1. https://www.mapa.gob.es/es/ganaderia/temas/produccion-y-mercados-ganaderos/Recomendaci%C3%B3n%20ovino_tcm30-104668.pdf 2. Real Decreto 348/2000, de 10 de marzo, por el que se incorpora al ordenamiento jurídico la Directiva 98/58/CE, relativa a la protección de los animales en las explotaciones ganaderas. https://www.boe.es/buscar/act.php?id=BOE-A-2000-4698 3. https://www.boe.es/biblioteca_juridica/codigos/codigo.php?id=204_Codigo_de_Proteccion_y_Bienestar_Animal&modo=2 4. https://www.youtube.com/watch?v=XQxscHUK66E 5. https://www.youtube.com/watch?v=WbY5PCKJ-N8 6. https://www.boe.es/eli/es/l/2023/03/28/7
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> • Guarantee animal welfare • Apply legal requirements

<p>Module title</p> <p>7. End use/business goals and processing (milk, wool, meat)</p>
<p>Contents</p>



- 7.1. Meat production
- 7.2. Milk production. Introduction to cheese production.
- 7.3. Production of wool and skins
- 7.4. Regulations and traceability
- 7.5. Differentiated quality products and organic production
- 7.6. Cooperation and partnership

Additional information for each topic (links)

8.1. Meat production

1. <https://www.mapa.gob.es/es/ministerio/servicios/informacion/plataforma-de-conocimiento-para-el-medio-rural-y-pesquero/observatorio-de-tecnologias-probadas/sistemas-prodnut-animal/ganado-ovino.aspx>
2. <https://www.mapa.gob.es/es/ministerio/servicios/informacion/plataforma-de-conocimiento-para-el-medio-rural-y-pesquero/observatorio-de-tecnologias-probadas/sistemas-prodnut-animal/ovino-carne.aspx>
3. http://www.jcyl.es/web/jcyl/AgriculturaGanaderia/es/Plantilla100Detalle/1131977209076/_/1248677990091/Redaccion
4. <https://www.boe.es/boe/dias/2018/07/07/pdfs/BOE-A-2018-9463.pdf>



8.2. Milk production. Introduction to cheese production.

1. <https://www.mapa.gob.es/es/ministerio/servicios/informacion/plataforma-de-conocimiento-para-el-medio-rural-y-pesquero/observatorio-de-tecnologias-probadas/sistemas-prodnut-animal/ganado-ovino.aspx>
2. <https://www.mapa.gob.es/es/ministerio/servicios/informacion/plataforma-de-conocimiento-para-el-medio-rural-y-pesquero/observatorio-de-tecnologias-probadas/sistemas-prodnut-animal/ovino-leche.aspx>
3. https://www.produccion-animal.com.ar/produccion_ovina/produccion_ovina_leche/51-leche.pdf
4. <https://www.boe.es/buscar/pdf/2006/BOE-A-2006-17436-consolidado.pdf>
5. <https://lacteaszamoro.com/como-elaborar-queso-curado-oveja/>
6. https://museovirtual.csic.es/profesores/tecnologias/webqueso/ficha_1.htm
7. <https://www.juntadeandalucia.es/agriculturaypesca/ifapa/servifapa/registro-servifapa/605c5341-361a-4813-a190-55b78f08841c/download>

8.3. Wool and fur production

1. <https://www.canalextramadura.es/video/la-lana-y-su-proceso-de-transformacion-en-plena-comarca-de-la-serena>
2. Video: Wool processing plant in Alfambra (Teruel).
<https://www.youtube.com/watch?v=KxLb014T21c>
3. Video: Wool transformation process at Finca La Cocola.
<https://www.youtube.com/watch?v=CmyatFHgl4c>
4. <https://ruminants.ceva.pro/es/como-afecta-mercado-piel-ovina-precio-cordero>

8.4. Regulations and traceability

1. <https://www.mapa.gob.es/es/ganaderia/temas/trazabilidad-animal/identificacion-animal/ovino-caprino/>
2. https://www.aesan.gob.es/AECOSAN/docs/documentos/publicaciones/seguridad_alimentaria/guia_trazabilidad.pdf

8.5. Organic production

1. <https://www.mapa.gob.es/es/alimentacion/temas/calidad-diferenciada/>



2. <https://www.agroecologia.net/recursos/asesoramiento/recursos-ja/ganaderia/folletoovino.pdf#:~:text=Las%20ovejas%20pueden%20entrar%20en%20gestaci%C3%B3n%20durante%20todo,zonas%20salinas%20y%20aprovechando%20el%20rastrajo%20del%20arroz.>

3. <https://www.caecv.com/certificacion/>

4. <https://www.mapa.gob.es/es/alimentacion/temas/produccion-eco/>

5. <https://www.pefc.es/>

6. <https://es.fsc.org/es-es>

8.6. Cooperation and partnership

1. <http://www.ganaderiaextensiva.org/>

2. <https://www.entretantos.org/proyectos-entretantos/plataforma-ganaderia-extensiva-y-pastoralismo/>

3. <http://www.pastoresmonte.org/FEP>

4. <https://aepme.org/introduccion-aepme/>

5. <https://trashumanciaynaturaleza.org/>

6. <https://liveadapt.eu/curso-4/>

Learning outcomes/competences

- Be able to define business goals
- Be aware of techniques and solutions of different processing options
- Be aware of any local traditions

Module title

8. Marketing

Contents

- 8.1. Marketing of agri-foodstuffs. Marketing techniques
- 8.2. Marketing and commercialisation plan



Additional information for each topic (links)

9.1. Marketing of agri-foodstuffs. Marketing techniques

1. https://www.miteco.gob.es/ministerio/pags/Biblioteca/fondo/pdf/3765_all.pdf
2. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwj5n83_p bX6AhWlg_0HHTedDAkQFnoECCIQAQ&url=https%3A%2F%2Fwww.asaja.com%2Fimagenes%2Fcurso2016%2Fcursocomercializacion.pdf&usq=AOvVaw1zu9cjEmh9rgPd8IbBacfV
3. http://www.jcyl.es/web/jcyl/AgriculturaGanaderia/es/Plantilla100Detalle/1131977209076/_/1248677990091/Redaccion
4. <https://www.agroecologia.net/canales-cortos-comercializacion-ganaderia-extensiva-a-paso-lento-revista-ae-seae/>

9.2. Marketing and commercialisation plan

1. http://redmujeres.org/wp-content/uploads/2019/01/plan_comercializacion_microempresas.pdf

Learning outcomes/competences

- Apply the principles of and potential for marketing as part of shepherding profession
- Apply the knowledge of basic marketing methods and tools

Module title

10. Communication

Contents

- 10.1. The importance of good communication
- 10.2. Types of communication. Social networks
- 10.3. Assertive communication
- 10.4. 10.4. How to manage conflicts
- 10.5. Tools for good communication

Additional information for each topic (links)



10.1. The importance of good communication

1. https://sence.gob.cl/sites/default/files/comunicacion_en_el_trabajo_-_infografia_carta.pdf
2. https://tauja.ujaen.es/bitstream/10953.1/923/7/TFG_GalianoCarrion,Raul.pdf
3. <https://raices.info/>

10.2. Types of communication. Social networks

1. <https://economipedia.com/definiciones/redes-sociales.html>
2. <https://www.youtube.com/watch?v=C7F1E2Phx-w>
3. <https://raices.info/>

10.3. Assertive communication

1. <https://www.redalyc.org/pdf/292/29251161005.pdf>
2. https://www.divulgaciondinamica.es/tecnicas-comunicacion-assertiva/#Caracteristicas_de_la_comunicacion_assertiva

10.4. How to manage conflicts

1. <https://www.redalyc.org/pdf/396/39600114.pdf>
2. <http://www.conama11.vsf.es/conama10/download/files/conama2020/CT%202020/5298.pdf>

10.5. Tools for good communication

1. <http://www.webgou.uma.es/archivos/comunicacion.pdf>
2. <https://raices.info/>

Learning outcomes/competences

- Increase social awareness around the benefits and services provided by shepherds
- Improve the relations to your partners, people involved in different land uses and potential conflict partners
- Have the ability to accept different perspectives and communicate their own position professionally

Module title

11. Technology (GPS, satellite technologies, apps, digitalization ...)



Contents

- 11.1. Digitalisation in the agri-food and forestry sector in rural areas
- 11.2. New technologies in the livestock sector
- 11.3. Apps for livestock management
- 11.4. Virtual veterinary unit

Additional information for each topic (links)

- 11.1. Digitalisation in the agri-food and forestry sector in rural areas

<https://www.mapa.gob.es/es/ministerio/planes-estrategias/estrategia-digitalizacion-sector-agroalimentario/default.aspx>

- 11.2. New technologies in the livestock sector

<https://www.telefonica.com/es/sala-comunicacion/blog/ganaderia-4-0-las-nuevas-generaciones-de-ganaderos-impulsan-la-digitalizacion-del-sector/>

<https://clr.es/blog/es/tecnologias-del-sector-ganadero/>

<https://ixorigue.com/blog/post/tecnologia-aplicada-a-ganaderia-extensiva-llega-la-revolucion-digital-para-optimizar-y-rentabilizar-el-pastoreo>

<https://digitanimal.com/producto/localizador-gps-ovejas/>

https://diariodecastillayleon.elmundo.es/articulo/innovadores/vereda-digital-trashumancia/20220201110825040923.html?fbclid=IwAR2S9uEnz_kE65DWUsNE2a5MovuyZTaTg88F_r_8bz-WY1IVbg7MDR7f9Ss

<https://liveadapt.eu/innovaciones-tecnologicas-gestion-explotacion-ganadera/>

<https://www.youtube.com/watch?v=3yVaa3MYXRQ>

<https://www.innovagri.es/investigacion-desarrollo-innovacion/los-drones-al-servicio-de-la-ganaderia-extensiva.html>

<https://youtu.be/g5h0owMleis>

Utilizacion_de_tecnologias_IoT2.pdf

Sistemas_de_aviso_2.pdf

- 11.3. Apps for livestock management

<https://www.interempresas.net/ovino/Articulos/367325-aplicacion-MiRebano-nace-para-facilitar-gestion-de-explotaciones-de-ovino-de-carne.html>

<https://www.ganaderosonline.com/ovino-y-caprino>

<https://ovinapp.com/>

<https://liveadapt.eu/innovaciones-tecnologicas-gestion-explotacion-ganadera/>

https://www.youtube.com/watch?v=OtSLa8t_gV4



<https://www.contextoganadero.com/ganaderia-sostenible/3-aplicaciones-ganaderas-en-smartphones-siguen-ganando-terreno>

<https://lahuertadigital.es/7-apps-agricolas-ganaderas/>

<https://digitanimal.com/>

11.4. Virtual veterinary unit

<https://www.oviespana.com/Articulos/270914-MANEJO-Unidad-Veterinaria-Virtual-facilitara-gestiones-de-ganaderos-de-Castilla-y-Leon.html>

<https://ovznet.juntaex.es/>

<https://uganadera.iccm.es/>

<https://ovmediorural.xunta.gal/es/tramites/oficina-virtual-de-ganaderia>

<https://www.asturias.es/general/-/categories/573100>

<https://www.navarra.es/es/tramites/on/-/line/Obtencion-de-Guias-de-Origen-y-Sanidad-Pecuaría>

<https://aplicaciones.aragon.es/siciw/pages/login.xhtml>

<https://ws229.juntadeandalucia.es/agenciaagrariaypesquera/ova/>

Learning outcomes/competences

- Recognise and use new and unknown technology
- Be openminded to new technology and be able to appraise advantages and disadvantages
- Use new technology to improve productivity and job satisfaction



CHAPTER OF GOOD PRACTICES

- SFSCs, direct marketing (link consumers with producers)

<https://www.sciencedirect.com/science/article/pii/S2352550921000038>

<https://www.mdpi.com/2304-8158/9/1/22/pdf>

<https://www.researchgate.net/publication/309824194> Can social networks contribute to the development of short supply chains in the Spanish agri-food sector

- Associations and networking

<https://welaser-project.eu/coag/>

<http://www.coag.org/>

https://ec.europa.eu/environment/nature/natura2000/platform/documents/natura2000_farm1_and_conference/wg2-pedro_m_herrera_en.pdf

<http://www.ganaderiaextensiva.org/>

<https://www.ovinnova.es/>

<https://goovinnova.org/>

- Slaughterhouses for small animals

<https://www.fao.org/3/t0034e/T0034E01.htm>

<https://www.fao.org/3/t0279e/t0279e04.htm>

<https://www.efsa.europa.eu/en/topics/topic/animal-welfare-slaughter>

<https://agriculturaganaderia.jcyl.es/web/es/ganaderia/mataderos.html>

- Fertilizer as an instrument of marketing

- Funding options

<https://www.mapa.gob.es/es/ganaderia/ayudas-y-subsidencias/>

<https://agriculturaganaderia.jcyl.es/web/es/ganaderia/ayudas-para-actividades-ganaderas.html>

<https://agriculturaganaderia.jcyl.es/web/es/ayudas-subsidencias.html>



<https://www.fega.gob.es/es>

- New products

<https://www.healthforanimals.org/reports/innovation-report/>

<https://animalagtech.com/start-ups-transforming-the-livestock-industry/>

https://www.researchgate.net/publication/326500082_The_Innovative_Techniques_in_Animal_Husbandry

<https://www.sciencedirect.com/science/article/pii/B9780128214725000016>

<https://www.intechopen.com/online-first/79567>

- Training possibilities (training database)

<http://www.ganaderiaextensiva.org/escuelas-de-pastoreo/>

- Videos of shepherding from every partner, with no talking, only images, to see how live shepherds in other countries

Caminos, senderos y senderistas: su regulación legal (Roads, footpaths and walkers: their legal regulation): <https://www.youtube.com/watch?v=u6uxbo9e7S4&t=2s>

Ganadería extensiva y su medio natural (Extensive livestock farming and its natural environment): <https://www.youtube.com/watch?v=6nZpj9wvl18>

Beneficios del pastoreo de montaña en el medio ambiente y la economía agropecuaria (Benefits of mountain pastoralism on the environment and the agricultural economy): <https://www.youtube.com/watch?v=8CCn3r6NwWg>

La ganadería extensiva y el lobo (Extensive livestock farming and the wolf): https://www.youtube.com/watch?v=p_ZITpSFJ-g

Trashumancia: cómo se vive el primer día en una explotación ovina (Transhumance: what it's like to spend the first day on a sheep farm): <https://www.youtube.com/watch?v=aPjxZS8RU5k>



Trashumancia Ir y venir entre veredas. Katy Gómez (*Transhumance Coming and going between paths. Katy Gómez*): <https://www.youtube.com/watch?v=nfFjUuRNo-M>

De Cáceres a León Trashumancia de ovejas (*From Cáceres to León Sheep transhumance*): <https://www.youtube.com/watch?v=nrb1kSIBKBM>

Trashumancia Extrema en Santiago Pontones (*Extreme Transhumance in Santiago Pontones*): <https://www.youtube.com/watch?v=gpQuxSC-Chk>



Content of modules in Portugal



Module title

1. Knowledge of the environment, habitat management and ecosystem services

Contents

- Definitions, stratification of systems, integration and biologic basic concepts;
 - "Agro" or farming component: control of shrubs; forage production; forage conservation;
 - "Silvo" or forestall component: characterization of trees and their regeneration; wood production and fruit production; characterization of cork, it's properties and uses;
 - "Pastoral" or animal component: pasture improvement; grazing management
- Biodiversity: Bio-ecology of some species of the Portuguese fauna and flora. Endangered species and their habitats. IUCN conservation status. Conservation status of some Portuguese species. CORINE habitats and Natura 2000 network. In situ and ex situ conservation of animal and plant populations. Relevance of Protected Areas. Functional biodiversity and agricultures systems. Case studies on pest management.
- Water resources. Water sources. Main water uses. Water availability assessment; needs versus availability. Water resource systems performance indicators. Water resources operating and monitoring systems. Water resource systems integrated planning and management.
- Soil: Soil classifications. Erosion and soil conservation. Water erosion (laminar, ridges, and ravines) and wind erosion. Universal Soil Loss (USLE) equation. Protection methods against erosion. Desertification development and combat.

Additional information for each topic (links)

- [Millenium Ecosystem Assessment – Portugal Report.](#)
- [NAU - Sustentabilidade Ambiental - Mobilizar, Observar e Operacionalizar](#)
- [NAU - Sistema Terrestre, o Bem Comum Global](#)
- Carlos Alarcão, DRAP Centro - [Valorização da pecuária extensiva](#)
- [Caracterização e Cartografia dos Sistemas Extensivos de Pastoreio em Portugal Continental](#)

Learning outcomes/competences

- Achieving consciousness of the benefits for society and environment and biodiversity
- Create a more sustainable agrosilvopastoralism system
- Act ecologically



<p>Module title</p> <p>2. Animal management</p>
<p>Contents</p> <ul style="list-style-type: none"> ● Extensive Systems of Animal Production: characterization of extensive systems of livestock in Mediterranean environments with the 4 domestic species (cattle, sheep, pigs and goats). ● Game Production Systems: characterization of systems for hunting species, natural in Mediterranean environments. ● Management and integration of multifunctionality: Montado Crop Rotation; Feeding Scheme of Extensive Systems of Animal Production; Dynamic of Montado ecosystem. Evaluation of environmental impact in Agro-Silvo-Pastoral systems: in soil; in water; in the air; in fire; in biodiversity. ● Portuguese indigenous breeds (cattle, sheep, pigs and goats). ● Transhumance in Portugal. ● Flock management. ● Feeding and botanical knowledge. ● Health and hygiene and ethnoveterinary. First aid to livestock. ● Housing.
<p>Additional information for each topic (links)</p> <ul style="list-style-type: none"> ● Alberto Martinho
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> ● Keep a healthy and sustainable flock ● Produce an animal health plan ● Comply with legal requirements

<p>Module title</p> <p>3. Risk management and safety for shepherds</p>
<p>Contents</p> <ul style="list-style-type: none"> ● Safety, hygiene and health in agricultural work; ● Prevention and risk ● Main risk factors in agricultural, livestock and forestry work; ● Personal Protective Equipment (PPE); ● Signage, occupational diseases and hygiene at work; ● Prevention of accidents and diseases



<ul style="list-style-type: none"> ● Main causes of accidents with tractors in Portugal. <ul style="list-style-type: none"> • Identify the main provisions of the road code for the safe driving of agricultural vehicles on public roads and for operating on the farm, as well as provisions of the labor code. • Identify the principles to be taken into account for safe driving on public roads and operating on the farm, as well as compliance with the labor code. • Identify the skills and behavior that the tractor driver must have when driving on public roads and on farms. • Identify safety precautions to be taken when preparing and driving the tractor. • Identify the safety and protection equipment that the tractor must have. • Identify a tractor operator's personal protective equipment. • Drive the tractor safely on public roads and on the farm. • Drive the tractor with a mounted/towed machine safely on the farm. • Operate safely with the PTO (power take-off) and a propeller shaft. ● Integrated Pest management: key-pests and secondary pests. Preventive control. Functional biodiversity. Risk assessment techniques and decision making. Control methods and safety chemical pesticides. Genetic control, Biological control and Pheromones (mating disruption). Pesticides: food safety and ecotoxicology. ICM and Organic farming: production system.
<p>Additional information for each topic (links)</p> <ul style="list-style-type: none"> ● Autoridade para as Condições do Trabalho - Prevenção de Acidentes com equipamentos Agrícolas. ● <u>José Portela</u> – Pastores de gado miúdo e seus / nossos maiores 'problemas': sugestões de resolução. Da casa ao pasto e ao queijo/carne, passando pela EU.
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> ● Awareness of health and safety procedures ● Applying legal standards ● Ability to recognise and avoid risk

<p>Module title</p> <p>4. Legal requirements</p>
<p>Contents</p> <ul style="list-style-type: none"> ● Main legislation in the various environmental domains: Water; Air; waste; Noise; Energy; Environmental Risks; Harmful substances; Local breeds; Licensing. ● Main Portuguese and European legislation: milk production, opportunities, phytopharmaceutical products. ● How to start the activity: requirements; procedures; funding application; damage



<p>recovery request</p> <ul style="list-style-type: none"> ● Best practices for licensing.
<p>Additional information for each topic (links)</p> <ul style="list-style-type: none"> ● Direção Geral de Agricultura e Desenvolvimento Rural – Aplicação de Produtos Fitofarmacêuticos ● Tiago Melim (ANCRAS) – Quadro Legal com impacto para a atividade pastoril – constrangimentos e oportunidades
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> ● Understanding and complying with the minimum legal standard to keep sheep.

<p>Module title</p> <p>5. Breed selection</p>
<p>Contents</p> <ul style="list-style-type: none"> ● Biodiversity of the Mediterranean countries: mains aspects and reasons; relevant timing and national programs – National Program for the Animal Genetic Resources; conservation and improvement actions for the local breeds; ● Portuguese indigenous breeds (51 breeds of cattle, sheep, pigs and goats and 11 of dogs); ● Relevance of breeders associations, local producers and certified products (PDO and GPI) associations. ● Animal Genetic Resources – current situation in Portugal: local breeds and risk of extinction breeds (cattle, sheep, pigs and goats). ● Conservation/selection actions for the local breeds: what to do; what has been done. ● Public funding for local breeds. ● Conservation and/or Improvement Program: objectives for each breed (local or exotic); conservations actions: in situ or ex situ; Portuguese Animal Germplasm Bank. ● Improvement programs by selection: objectives of the improvement; selection methodology (female and male selection); genetic selection; estimation of the genetic value; breeding selection; “molecular tools”; Integration of Linear Morphological Classification in Selection Programs.
<p>Additional information for each topic (links)</p> <ul style="list-style-type: none"> ● Catálogo das Raças Autóctones Portuguesas 2021; ● Nuno Carolino – Ações de Conservação e Melhoramento dos RGA em Portugal ● Direção Geral de Alimentação e Veterinária - Plano Nacional para os Recursos Genéticos Animais ● Recenseamento agrícola 2019



Learning outcomes/competences

- Acquire the ability to choose the appropriate breed for the environment and the business goal

Module title

6. Livestock protection

Contents

- Shepherds Dog: definition of a shepherd dog; advantages of using a shepherd dog; what's not a shepherd dog; how does a shepherd dog interact with predators and livestock; how many shepherd dogs are necessary; what's the secret to have a shepherd dog efficient; how to choose a shepherd dog; shepherd dog breeds; how to educate a shepherd dog; how to correct inadequate behaviors.
- Fencing: electric fences: reasons to use electric fences; types of electric fences; what type of fences should be used; costs; general structure of an electric fence; use of lighting.
- Construction of stables;
- Rattles and collars for cattle;
- Wolf and wild species: damage recovery for the losses caused by wolves;

Additional information for each topic (links)

- [LIFE COEX – Cães de gado e vedações para o confinamento e proteção de gado e para a proteção de culturas agrícolas](#)
- [Grupo Lobo – Cão de gado](#)

Learning outcomes/competences

- Acquire the ability to recognise and mitigate dangers and discomfort
- Have the ability to choose the correct technique or remedy to ensure protection
- Have the ability to handle and train dogs correctly
- Understand sufficient fencing requirements



<p>Module title 7. Animal welfare</p>
<p>Contents</p> <ul style="list-style-type: none"> ● Hygiene of animals, facilities and equipment ● Protocols for animal welfare assessment. ● Legislation ● Livestock behaviour. Sheep breeding systems and their implications on welfare. Best practices for the livestock management on welfare: food and drinking, facilities and housing, animal health and biosecurity, animal management, animal behavior. Animal transportation.
<p>Additional information for each topic (links)</p> <ul style="list-style-type: none"> ● Direção Geral de Alimentação e Veterinária – Manual de Bem-Estar Animal ● Direção Geral de Alimentação e Veterinária – Manual de Boas Práticas: Bem-Estar em Ovinos
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> ● Guarantee animal welfare ● Apply legal requirements

<p>Module title 8. End use/business goals and processing (milk, wool, meat). Local food production</p>
<p>Contents</p> <ul style="list-style-type: none"> ● Mediterranean Farming Systems: presentation and characterization of: agro-silvo-pastoral systems (Montado), permanent systems (olive and vineyard) and crops under rotation of cultures by rainfed and irrigated conditions; ● Agrobusiness opportunities related to shepherds: milk, cheese, yoghurt, wool, meat, ● Aromatic and Medicinal Plants and Fungus: characterization and production of natural flora as Medicinal and Aromatic purposes and Fungi species, that occur in Mediterranean environments. ● Traditional products: quality and origin; PDO or GPI labeling; concept of traditional products in the Portuguese and European legislation; List of Portuguese Traditional products.



Additional information for each topic (links)

- [Qualifica: Produtos Tradicionais Portugueses: Razão e Importância Estratégica da sua Qualificação](#)
- [Direção Geral de Alimentação e Veterinária – O Futuro das lãs Portuguesas – Um Desafio no Mundo Rural](#)
- [Open2preserve – Management and Entrepreneurship \(Agrobusiness opportunities\)](#)

Learning outcomes/competences

- Be able to define business goals
- Be aware of techniques and solutions of different processing options
- Be aware of any local traditions

Module title

9. Marketing

Contents

- Brief review of economic concepts – definition of economics; agents, markets and economic models; the supply and demand of food; Market equilibrium; Theory of production and costs. Specificities of agricultural production. Production Economics: The factor-factor and product-product relationship: Physical and economic relations; Applications of Production Economics. Agricultural Markets and Policies: Producer and consumer surplus: Producer surplus; Consumer surplus; Markets – determination of the impact of policies.
- Innovation, entrepreneurship and competitiveness. Innovation: Concepts, dimensions and types of innovation. Changing patterns of innovation. Sources of innovation. Protecting innovation. Factors of success and failure in innovation. Strategies for business innovation. Innovation scorecard. National innovation system. Policies and instruments to support innovation. New products development.
- Entrepreneurship: Introduction to entrepreneurship. National and global entrepreneurial activity. Challenges and myths of entrepreneurship. Generation and evaluation of ideas. Detection and selection of opportunities. Legal forms of the new company. Formalities for business creation. The role of marketing in entrepreneurship. Networks. Preparation of business plan (market analysis, industry analysis, marketing strategy, investment plan, business plan, financing plan, project evaluation). People management. Organizational behaviour

Additional information for each topic (links)

- [Google Atelier Digital - Princípios do marketing digital](#)
- [Linkedin Learning - Marketing empresarial](#)



- Open2preserve – Management and Entrepreneurship

Learning outcomes/competences

- Apply the principles of and potential for marketing as part of shepherding profession
- Apply the knowledge of basic marketing methods and tools

Module title

10. Communication

Contents

- Skills (e.g. tourism, rangers, land owners, hunters)
 - Principles, Attitudes and Facilitating Behaviors in Interpersonal Relationships; Availability and Pro-action; Flexibility and Alternatives; Empathy and Trust; Verbal and Non-verbal Language; Communication Optimization; The Predominant Attitudes: aggressiveness, manipulation and passivity; The Assertive Attitude as a Facilitator of Communication and Interpersonal Relationships; Assertiveness as a Technique to Manage Difficult Situations – 4 Steps.
- Social media: Characterize and distinguish social networks. Learn to use and enhance social networks and blogs as a form of digital marketing, applied to a business idea. Define communication and digital marketing plans. Manage and measure results from a digital marketing strategy.

Additional information for each topic (links)

- [Accenture – Maisdigiaula](#)
- [Cisco – Network Academy](#)
- [NAU - Introdução à Comunicação Digital](#)
- [NAU - Introdução às Redes Sociais](#)
- [NAU - Redes Sociais, Medidas de Segurança](#)

Learning outcomes/competences

- Increase social awareness around the benefits and services provided by shepherds
- Improve the relations to your partners, people involved in different land uses and potential conflict partners



- Have the ability to accept different perspectives and communicate their own position professionally

Module title

11. Technology (GPS, satellite technologies, apps, digitalization ...)

Contents

- Precision farming: efficiency in the use of factors; application and modelization of the use of factors by new technologies, based on identification and analysis of natural resources.
- Information in agriculture: types, sources and obtaining information for agriculture.
- Geographic Information Systems: data structures (alphanumeric and geographic); visualization, acquisition, and manipulation of data; georeferencing; selection, research, and analysis of data; three- dimensional representation of geographic information; information graphical presentation.
- Information technology applications: efficiency and modeling in the use of natural resources and yield- factors

Additional information for each topic (links)

- [Rede Rural Nacional – Inovação para a agricultura](#)
- [Instituto Nacional de Investigação Agrária e Veterinária – Inovação na Produção Agrícola](#)
- [Direção Regional de Agricultura e Pescas do Centro – Inovação em Portugal Rural – Detectar, medir e valorizar](#)

Learning outcomes/competences

- Recognise and use new and unknown technology
- Be openminded to new technology and be able to appraise advantages and disadvantages
- Use new technology to improve productivity and job satisfaction



Content of modules in Austria and Germany



Module title

1. Knowledge of the environment, habitat management and ecosystem services

Contents

Ecosystem services: soil protection, forage production, water retention

Biodiversity

Applied plant sciences

Impact of landuse on vegetation and ecosystem

Impact of climate-change on agricultural management

Sustainable pasture management: Pasture plants, pasture care and regeneration of the pasture, necessary fertilisation, reseeding techniques, pasture management forms, Feed value estimation

Additional information for each topic (links)

[Bewirtschaftung von Agrarflächen in Natura-2000-Gebieten - Publications Office of the EU](#)

Alm-Management:

<https://www.almwirtschaft.com/Aktuelles/lfi-farminarreihe-weidemanagement-auf-der-alm-aufzeichnungen.html>

Buchtip:

Landschaftsmanagement, Landschaftsökologie

Dierschle und Briemle (2008): Kulturgrasland. Ulmer Verlag

<https://www.ulmer.de/usd-1557156/kulturgrasland-.html>

Buchtip: Heinz Ellenberg (2010): Vegetation Mitteleuropas mit den Alpen. Ulmer Verlag

[maurer-heckendorn-2010-forum_dt.pdf](#)



[Die Rote Liste der gefährdeten Nutzierrassen der GEH](#)

[Deichschafe an der Nordsee | Schaffreundschaft in Dornum](#)

[Artlenburger Deichverband - Schafherden](#)

[Heidschnucken - unsere tierischen Landschaftspfleger](#)

[Naturraum Heide: Heidepflege und Heideerhalt im Naturpark Lüneburger Heide](#)

[Schnucken in der Braderuper Heide | Naturschutzgemeinschaft Sylt e.V.](#)

[Heidelandschaften in Europa - Planet Wissen](#)

Handbuch: Die Schaf- und Ziegenhaltung in NRW zukunftsfähig gestalten

<https://www.landwirtschaftskammer.de/landwirtschaft/tierproduktion/schafhaltung/pdf/handbuch.pdf>

Knowledge transfer on the co-adaptation of humans and wolves in the Alpine region – CIPRA (e)

<https://www.cipra.org/en/cipra/international/projects/completed/knowledge-transfer-on-the-co-adaptation-of-man-and-wolf-in-the-alpine-region>

Zeigerpflanzen-Broschüren der ÖAG:

<https://gruenland-viehwirtschaft.at/fachinformationen/gruenland/240-zeigerpflanzen-im-wirtschaftsgruenland.html>

<https://gruenland-viehwirtschaft.at/fachinformationen/gruenland/275-zeigerpflanzen-fuer-den-wasserhaushalt-und-den-saeuregrad-des-bodens-im-gruenland.html>

Artikel: Innovatives Almmanagement durch gezielte Beweidung mit Schafen zur nachhaltigen Bewirtschaftung der alpinen Kulturlandschaft:

https://raumberg-gumpenstein.at/downloads/FODOK/2008/fodok_3_5330_3k_2008_ringdorfer.pdf

Broschüre: Was die Alm leistet - Beschreibung und Bewertung der Funktionen von Almflächen mit Hilfe von Nachhaltigkeitskriterien, ALP Austria:

https://www.almwirtschaft.com/images/stories/fotos/alpaustria/pdf/Trixl_Almfunktionen.pdf

Angebote des LFI (Ländliches Fortbildungsinstitut):

- Weidebegehung für (Bio-)Schaf- und Ziegenhalter/innen
- Erfolgreiche Weidehaltung bei Schafen

Learning outcomes/competences



- Achieving consciousness of the benefits for society and environment and biodiversity
- Create a more sustainable agrosilvopastoralism system
- Act ecologically

Module title

2. Animal management

Contents

a. Flock management

Nature and behaviour of sheep

Documentation and registration

Sheep shearing

Sheep comfort

Herd management measures

Working with herding dogs

b. Feeding and botanical knowledge

Feeding principles: ruminant digestion and physiology

Ration design

Feed science

Performance-oriented feeding

Toxic plants

c. Health and hygiene and etnoveterinary. First aid to livestock

Animal welfare

Management of parasites



Hoof care

Birth management

Preventing, recognising and treating diseases

Phytomedicine

d. Housing

Housing systems

Additional information for each topic (links)

Broschüren der Österreichischen Arbeitsgemeinschaft für Grünland und Futterbau (z.B. Giftpflanzen, Weidepflege, etc.). <https://gruenland-viehwirtschaft.at/>

Broschüre: Stallbau für Schafe und Ziegen: <https://www.alpinetgheep.com/broschueren-und-infomaterial.html>

Tiergesundheit bei Schaf und Ziege: <https://www.alpinetgheep.com/broschueren-und-infomaterial.html>

- Anatomie
- Parasiten
- Klauenpflege und Klauenprobleme
- Stoffwechselerkrankungen
- Durchfallerkrankungen
- Eutergesundheit
- Geburt
- Ausfallursachen
- Zoonosen
- Speziell ausgewählte Krankheiten

[Seminar Klauenpflege bei Schafen und Ziegen: Landwirtschaftskammer Niedersachsen](#)

[Schafhaltung | Schafe schützen](#)

[LELF - Heidepflege mit Schafen.pdf](#)



[Online-Handbuch: Beweidung mit Schafen](#)

[Grünlandmanagement mit Schafen - Landwirtschaftskammer Nordrhein-Westfalen](#)

[Nachhaltige Beweidung von Streuobstgrünland: Zum Einfluss unterschiedlicher Weidetiere \(Rind, Schaf, Pferd\) auf die pflanzliche Artenvielfalt und Baumgesundheit - aggf_2016_schmitz_et_al.pdf](#)

[Thünen-Institut: Biotoppflege mit Ziegen und Schafen](#)

[Landschafts- und Deichpflege mit Schafen | Schafe schützen](#)

[Schafe und Ziegen in der Landschaftspflege - Schäferei in Bayern](#)

[TLL: Weidpflege in der Hobbyschafhaltung.pdf](#)

[Tipps zu Beweidung mit Schafen - NABU Rheinland-Pfalz](#)

["Pflegeschnitt" durch Schafe | Elite Magazin](#)

[LPV Potsdamer Kulturlandschaft](#)

[Bewirtschaftung von Agrarflächen in Natura-2000-Gebieten-Fallbeispiele_de.pdf](#)

[DeFAF Broschüre Agroforstwirtschaft.pdf](#)

Erklärvideos: SZ-Online

- [sz online - Teil 1: Registrierung und Einstieg](#)
- [sz online - Teil 2: Grundfunktionen, Menüführung, Aufbau](#)
- [sz online - Teil 3: Einstellungen und Stammdaten](#)
- [sz online - Teil 4: Tierbewegung anlegen](#)
- [sz online - Teil 5: Ablammungen erfassen](#)
- [sz online - Teil 6: Verwandtschaftskontrolle](#)
- [sz online - Teil 7: Vorbereitung auf die Tierkennzeichnungskontrolle](#)
- [sz online - Arbeitskreismodul](#)

Video: Moderhinke: <https://www.t-tgd.at/interessantes/film-ueber-moderhinke-bei-schafen-und-ziegen>

Video: Pseudotuberkulose: <https://www.t-tgd.at/interessantes/film-pseudotuberkulose>



Video: Tierkennzeichnung: <https://v.agrarumweltpaedagogik.at/video/Tierkennzeichnung-Schafe-und-Ziegen-DI-Evelyn-Zarfl/1e30bd6eb8e6e8832f07ad81c08189fa>

Angebote des LFI (Ländliches Fortbildungsinstitut):

- LKV Herdenmanagement Schafe/Ziegen
- Gesundheits-Check bei Schafen und Ziegen
- Die wichtigsten Schaf- und Ziegenkrankheiten mit Alternativmedizin vorbeugen und behandeln
- Gesunde Lämmer und Kitze
- Parasitenerkrankungen bei Schaf und Ziege
- Rasche Hilfe für Schafe und Ziegen. Notfälle im Stall
- Moderner Stallbau für Rinder, Schafe, Ziegen, Pferde
- Homöopathie bei Rind, Schaf und Ziege. Grundkurs, Aufbaukurs
- Tiergesundheitsdienst (TGD) Grundausbildung Schaf- und Ziegenhaltung
- Rund um die Geburt bei Schaf und Ziege
- Zertifikatslehrgang Bäuerliche Schaf- und Ziegenhaltung
- Schafscherkur
- Klauengesundheit und Klauenpflege bei Schafen
- Rasche Hilfe im Schaf- und Ziegenstall
- Stoffwechselstörungen bei Schaf und Ziege
- Eutergesundheit verstehen und fördern - Mit Homöopathie und Heilpflanzen unterstützen
- Alternative Behandlungsmethoden für Schafe und Ziegen - Homöopathie und Pflanzenheilkunde

Learning outcomes/competences

- Keep a healthy and sustainable flock
- Produce an animal health plan
- Comply with legal requirements

Module title

3. Risk management and safety for shepherds

Contents

First aid services



Health issues: ticks, zoonotic diseases, sun burn, skin cancer, ...

Dealing with loneliness

Proper behaviour in the specific landscape (mountains, ...)

Dealing with specific hazard-situations (fire, land slide, thunderstorm ...)

Individual emergency-management (where Mobile phone signal, ICE-numbers)

How to deal with dangerous animals (snakes, bears, spider,..)

Information about insurances and retirement

Additional information for each topic (links)

Broschüre: Versicherungsschutz für Bauern:

<https://www.svs.at/cdscontent/?contentid=10007.816465&portal=svsportal>

Sozialversicherung für Landwirtschaft, Forsten und Gartenbau (SVLFG)

<https://www.svlfg.de/>

BMEL - Landwirtschaftliche Krankenversicherung:

<https://www.bmel.de/DE/themen/landwirtschaft/agrarsozialpolitik/landwirtschaftliche-krankenversicherung.html>

Schäfereikalender 2023. Thema: Arbeitssicherheit (jährlich wechselnde Themen) Ulmer Verlag

<https://www.ulmer.de/usd-7118595/schaeferikalender-2023-.html>

Learning outcomes/competences

- Awareness of health and safety procedures
- Applying legal standards
- Ability to recognise and avoid risk

Module title

4. Legal requirements



Contents

Animal welfare law, housing, animal protection

Transport

Liability

Land use and property rights

Nature protection law

Obligation of documentation: animal registration, medical treatments,...

Additional information for each topic (links)

Tierschutzgesetz Österreich:

<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20003541>

Handbuch Tiertransporte, Kurzstrecke:

<https://www.tierschutzkonform.at/wp-content/uploads/2020/10/www.tierschutzkonform.at-tt-handbuch-kurzstrecke-1.pdf>

Handbuch Tiertransporte, Langstrecke:

<https://www.tierschutzkonform.at/wp-content/uploads/2020/10/www.tierschutzkonform.at-tt-handbuch-langstrecke-1.pdf>

Leitfaden für die Tierbehandlung am Bio-Betrieb:

http://www.t-tgd.at/images/Broschueren/Leitfaden-fr-die-Tierbehandlung-am-Bio-Betrieb_2017.pdf

Ausbildung Alpung und Behirtung LFS Grabnerhof:

<https://www.fachschulen.steiermark.at/cms/beitrag/12857686/105467471/>

Tierschutzgesetz Deutschland:

<https://www.gesetze-im-internet.de/tierschg/BJNR012770972.html>

Tierschutztransportverordnung – Deutschland



https://www.gesetze-im-internet.de/tierschtrv_2009/BJNR037500009.html

Handbücher der AG Tierschutz der LAV

<https://www.fli.de/de/service/handbuecher-der-ag-tierschutz-der-lav/>

Verordnung (EG) Nr. 1099/2009 des Rates vom 24. September 2009 über den Schutz von Tieren zum Zeitpunkt der Tötung

<https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:303:0001:0030:DE:PDF>

Verordnung zum Schutz von Tieren im Zusammenhang mit der Schlachtung oder Tötung

https://www.gesetze-im-internet.de/tierschlv_2013/

Verordnung zum Schutz gegen die Verschleppung von Tierseuchen im Viehverkehr (Viehverkehrsverordnung)

https://www.gesetze-im-internet.de/viehverkv_2007/BJNR127400007.html

Leitlinien der Landwirtschaftskammer Niedersachsen zur ordnungsgemäßen Landwirtschaft und Tierhaltung:

[Leitlinien ordnungsgemLandwirtschaft_2021](#)

[Leitlinien Schafhaltung_2021.pdf](#)

[Leitlinien Ziegenhaltung_2021.pdf](#)

[Tiergesundheitsdienste / Schaf- und Ziegengesundheitsdienst : Landwirtschaftskammer Niedersachsen](#)

LAVES Niedersachsen:

[Empfehlung für die ganzjährige und saisonale Weidehaltung von Schafen](#)



BAFU-Empfehlungen-NHG-Weideverträge

Angebote des LFI (Ländliches Fortbildungsinstitut):

- TiertransportbetreuerIn
- Alles was Recht ist im Schaf- und Ziegenstall

Learning outcomes/competences

- Understanding and complying with the minimum legal standard to keep sheep

Module title

5. Breed selection

Contents

Genetic heritage of different breeds

Breeds: characteristics of different breeds, breeding goals, criteria for breeding animals

Breeding value assessment

Animal purchase and sale

Additional information for each topic (links)

Züchterhandbuch Schafe und Ziegen:

https://www.oebasz.at/fileadmin/user_upload/zuechterhandbuch_gesamt_web.pdf

ARCHE farms are breeding and presentation centres for rare breeds of farm animals:

Ein ARCHE Hof ist eine Zucht- und Präsentationsstätte seltener Nutztierassen. <https://www.archehof.at/>

Die ÖNGENE ist eine bundesländerübergreifende Organisation für den Schutz und die Bewahrung der Erbanlagen seltener erhaltungswürdiger heimischer Nutztierassen.



<http://www.oengene.at/schafe>

Broschüre: „Seltene erhaltungswürdige Schafrassen Österreichs“

<http://www.oengene.at/sites/default/files/dateien/rassen/schafressen.pdf>

Handbuch seltene Nutztierassen:

<https://oekl.at/publikationen/lts/lts231/>

Erste Zuchtwertschätzung für Schafe in Österreich:

<http://www.schafeundziegen.com/detailansicht/article/erste-zuchtwerte-fuer-schafe-und-ziegen-in-oesterreich/>

<https://www.alpinetgheep.com/zuchtwertschaetzung.html>

[Gefährdete Nutztierassen fördern und erhalten: Landwirtschaftskammer Niedersachsen](#)

[Zucht-, Besamungs-, ET-Organisationen und Ausbildungsstätten in Niedersachsen: Landwirtschaftskammer Niedersachsen](#)

Vereinigung Deutscher Landesschafzuchtverbände (VDL): <https://www.schafe-sind-toll.com/>

Zuchtwertschätzung für Schafe: <https://www.vit.de/vit-fuers-tier/vit-fuer-schaf-und-ziege/zuchtwertschaetzung-fuer-schafe>

Video: Schaf und Ziegenzucht: https://www.youtube.com/watch?v=ZqKW30x9_Ao

Studie: Muttergebundene Lämmermast auf extensiver Weide mit Waldschafen und Waldschaf x Ile de France: https://dafne.at/content/report_release/ae0ca9ae-0b22-4e3b-b80d-33f03c095557_0.pdf

Angebote des LFI (Ländliches Fortbildungsinstitut):

- Einstieg in die Schaf- und Ziegenzucht

Learning outcomes/competences



- Acquire the ability to choose the appropriate breed for the environment and the business goal

Module title

6. Livestock protection

Contents

Dog training

Fencing

Knowledge about predators

Technical equipment like GPS-tracking

Additional information for each topic (links)

Herdenschutz:

<https://baer-wolf-luchs.at/herdenschutz.htm>

Broschüre Technischer Herdenschutz: <https://baer-wolf-luchs.at/info/publikationen-des-oez>

Integrierter Schutz von Schafen in der Almhaltung:

https://www.researchgate.net/publication/343162637_Integrierter_Schutz_von_Schafen_in_der_Almhaltung

<https://www.beutegreifer.at/categories/behirtung>

Förderrichtlinie Wolf LWK NRW:

<https://www.landwirtschaftskammer.de/foerderung/laendlicherraum/wolf/index.htm>



NLWKN: Wolfsbüro: <https://www.nlwkn.niedersachsen.de/wolfsbuero/das-wolfsbuero-im-nlwkn-134954.html>

LWK Niedersachsen: Merkblätter für den Herdenschutz: https://www.lwk-niedersachsen.de/lwk/news/37922_Merkblaetter_fuer_den_Herdenschutz

BUND: [Herdenschutzhunde – bester Schutz fürs Schaf](#)

[Wolfschutz Deutschland](#)

Der Hirte organisiert und kontrolliert die Schutzmaßnahmen - LfL
<https://www.lfl.bayern.de/itz/herdenschutz/029270/index.php>

Angebote des LFI (Ländliches Fortbildungsinstitut):

- Weidehaltung und Zaunbau für Schafe und Ziegen

Learning outcomes/competences

- Acquire the ability to recognise and mitigate dangers and discomfort
- Have the ability to choose the correct technique or remedy to ensure protection
- Have the ability to handle and train dogs correctly
- Understand sufficient fencing requirements

Module title

7. Animal welfare

Contents



Is included in the Animal management,

From our point of view, it would be better to give this topic a lot of space in the upper module. Animal welfare should be the basis for the entire animal management.

Additional information for each topic (links)

Animal welfare and stockmanship

Tierschutzgesetz Österreich: [RIS - Tierschutzgesetz - Bundesrecht konsolidiert, Fassung vom 02.11.2022 \(bka.gv.at\)](https://www.ris.bka.gv.at/ris/ris.nrs?risnr=117001&risid=117001)

Broschüren der Österreichischen Arbeitsgemeinschaft für Grünland und Futterbau (z.B. Giftpflanzen, Weidepflege, etc.). <https://gruenland-viehwirtschaft.at/>

Broschüre: Stallbau für Schafe und Ziegen: <https://www.alpinetgheep.com/broschueren-und-infomaterial.html>

Tiergesundheit bei Schaf und Ziege: <https://www.alpinetgheep.com/broschueren-und-infomaterial.html>

Tierschutzgesetz Deutschland: <https://www.gesetze-im-internet.de/tierschg/BJNR012770972.html>

Tierwohl-Kompetenzzentrum Schaf (TWZ): <https://www.nutztierhaltung.de/nutztierstrategie/bundesprogramm/tierwohl-kompetenzzentrum-schaf-twz/>

[Leitlinien Schafhaltung 2021.pdf](#)



[Leitlinien Ziegenhaltung 2021.pdf](#)

Tierwohl Bio Austria <https://www.bio-austria.at/tierwohl-auf-einen-blick/>

Leitfaden Tierwohl Schafe und Ziegen <https://www.bio-austria.at/d/bauern/leitfaden-tierwohl-schafe-ziege/>

[Low Stress Stockmanship - Sicherheit und Effizienz bei der Arbeit mit Tieren](#)

Learning outcomes/competences

- Guarantee animal welfare
- Apply legal requirements

Module title

8. End use/business goals and processing (milk, wool, meat). Local food production

Contents

Basics of Business Management

Basic of a businessplan

Direct marketing

Added value chain

Processing technologies

Qualitymanagement, HCCP

Foodsecurity



Additional information for each topic (links)

Brochure:

Reden wir über die Landwirtschaft:

https://ooe.lko.at/media.php?filename=download%3D%2F2021.01.20%2F1611164776631899.pdf&n=Reden%20wir%20%C3%BCber%20die%20Landwirtschaft_J%C3%A4nner%202021.pdf

Folder: Wirtschaftlichkeit Schafhaltung: <https://www.alpinetgheep.com/broschueren-und-infomaterial.html>

Fütterung zur Milcherzeugung: <https://www.alpinetgheep.com/broschueren-und-infomaterial.html>

Fütterung zur Lammfleischproduktion: <https://www.alpinetgheep.com/broschueren-und-infomaterial.html>

Schaf- und Ziegenmilch: <https://www.alpinetgheep.com/broschueren-und-infomaterial.html>

BZL - Wirtschaftlichkeit in der Schafhaltung: <https://www.nutztierhaltung.de/schaf/oekonomie/keine-schaeferie-ist-wie-die-andere/>

Handbuch: Die Schaf- und Ziegenhaltung in NRW zukunftsfähig gestalten

<https://www.landwirtschaftskammer.de/landwirtschaft/tierproduktion/schafhaltung/pdf/handbuch.pdf>

BLE - Heimische Schaf- und Ziegenmilchprodukte:

<https://www.oekolandbau.de/verarbeitung/produktion/verfahren/milchprodukte/heimische-schaf-und-ziegenmilchprodukte/>

Angebote des LFI (Ländliches Fortbildungsinstitut):

- Schafe: Zerlege- und Verarbeitungskurs
- Weich- und Schnittkäseproduktion aus Schaf- und/oder Ziegenmilch
- Altschaf - was tun?
- Zertifikatslehrgang Bäuerliche Direktvermarktung

[Angebote der Landwirtschaftskammer Niedersachsen:](#)

- Direktvermarktung für Schafhalter



- Betäuben und Töten für Schafe und Ziegen

Learning outcomes/competences

- Be able to define sustainable business goals
- Be aware of techniques and solutions of different processing options
- Be aware of any local traditions
- Making economic decisions based on own figures and calculations and deriving economic decisions for the future.

Module title

9. Marketing

Contents

Market survey

Marketing

Knowledge of market situation and possibilities

Basics of public relations

Additional information for each topic (links)

[Die Not der Lämmer | NDR.de - Fernsehen - Sendungen A-Z - Die Nordreportage: Hofgeschichten](#)

[Wolle for future: Alte Fäden neu gesponnen | NDR.de - Fernsehen - Sendungen A-Z - Die Nordreportage](#)

[Jetzt spinnen wir auch noch | NDR.de - Fernsehen - Sendungen A-Z - Die Nordreportage](#)

BLE - Marketing und Vertrieb: <https://www.oekolandbau.de/verarbeitung/verkauf/marketing-und-vertrieb/>



Angebote des LFI (Ländliches Fortbildungsinstitut):

- Schaf-, Wild/Ziegenfleisch sinnvoll verwerten und verkaufen
- Lehrgang 'Digitales Marketing'
- Facebook und Social Media Marketing leicht gemacht
- Lehrgang: Marketing ist mehr als Werbung
- Mein Hof als Marke
- Bio-Direktvermarktung
- Marketing – Corporate Design

[Kurssuche | LFI Portal](#)

Learning outcomes/competences

- Apply the principles of and potential for marketing as part of shepherding profession
- Apply the knowledge of basic marketing methods and tools

Module title

10. Communication

Contents

- e. Skills (e.g. tourism, rangers, land owners, hunters, etc.)
 - speaking techniques
 - arguing
 - framing
 - dealing with conflicts
 - Basics in networking
- f. Social media, we would place the social media into marketing modul

Additional information for each topic (links)



Angebote des LFI (Ländliches Fortbildungsinstitut):

- Persönlichkeit und Kommunikation
- Die Macht der Kommunikation
- Gewaltfreie Kommunikation nach Rosenberg
- Wertschätzende Kommunikation für jede Situation
- Bäuerinnen und Bauer erklären Landwirtschaft

Broschüre: Reden wir über die Landwirtschaft:

<https://ooe.lko.at/media/1611164776631899.pdf>

Hochschullehrgang Agrarkommunikation: <https://www.haup.ac.at/fortbildung/hochschullehrgang-agrarkommunikation/>

Info-Seite der KL NÖ <https://www.landwirtschaft-verstehen.at/>

Literatur

Matthias Kussin und Jan Berstermann 2022: Agrarkommunikation. Springer Verlag.

<https://link.springer.com/book/10.1007/978-3-658-36341-3>

Leitfaden Kommunikation - Kommunikation auf Augenhöhe - Arbeitsblätter für Berufsbildner
10 Module, ISBN 978-3-00-056215-0

Kommunikations- und Marketingstrategie: <https://newbie-direktvermarktung.de/kommunikations-und-marketingstrategie/>

Learning outcomes/competences

- Increase social awareness around the benefits and services provided by shepherds
- Improve the relations to your partners, people involved in different land uses and potential conflict partners
- Have the ability to accept different perspectives and communicate their own position professionally



Module title

11. Technology (GPS, satellite technologies, apps, digitalization ...)

Contents

Introduction to common digital technologies: GPS, satellite technologies, apps

Weather app

mobile power generation, photovoltaic system: eg. Photovoltaic on back pack

Additional information for each topic (links)

Folien: Schafe orten mit GPS: https://raumberg-gumpenstein.at/component/rsfiles/vorschau.html?path=Tagungen%252FSchaf_Ziegentagung%252FSc_haftagung_2020%252F1sv_2020_huber.pdf

EDV für Züchter: <https://www.vit.de/vit-fuers-tier/vit-fuer-schaf-und-ziege>

BLE: <https://www.oekolandbau.de/landwirtschaft/tier/spezielle-tierhaltung/schafe-und-ziegen/tiergesundheit/management-tool-fuer-schafhalter/>

Learning outcomes/competences

- Recognise and use new and unknown technology
- Be openminded to new technology and be able to appraise advantages and disadvantages
- Use new technology to improve productivity and job satisfaction



Content of modules in Scotland



Module title

1. Knowledge of the Environment, Habitat Management and Ecosystem Services

Contents

- Summary of benefits of sustainable sheep keeping
- Assessing natural capital, biodiversity and carbon, ecosystem services on your land
- Agroforestry and sheep keeping
- Regenerative agriculture, mob grazing, pasture fed systems
- Conservation grazing
- High Nature Value (HNV) farmland in Scotland
- Certification systems

Additional information for each topic (links)

- Assessing Natural Capital, biodiversity, carbon, ecosystem services
- <https://www.nature.scot/professional-advice/social-and-economic-benefits-nature/natural-capital/farming-nature/farmer-led-projects>
- <https://www.sabb.io/>
- <https://www.fas.scot/carbon-audits/>
- Agroforestry and Sheep Keeping
- <https://www.agroforestry.ac.uk/agroforestry-systems/pastoral>
- <https://agromixproject.eu/about/>
- <https://www.soilassociation.org/causes-campaigns/agroforestry>
- <https://www.soilassociation.org/causes-campaigns/agroforestry>
- Regenerative Agriculture, Mob Grazing, Pasture Fed Systems
- <https://www.gov.scot/publications/next-step-delivering-vision-scotland-leader-sustainable-regenerative-farming/>
- <https://www.youtube.com/watch?v=HaZ3mkG6fco>
- <https://www.soilassociation.org/our-work-in-scotland/scotland-farming-programmes/mob-grazing/>
- <https://www.pastureforlife.org/members/>
- <https://www.nffn.org.uk/>
- <https://www.pastureforlife.org/certification/the-pasture-for-life-standards/>
- Conservation Grazing
- <https://www.rbst.org.uk/gap-information>
- <https://scottishwildlifetrust.org.uk/how-to-help/make-a-donation/appeals/flying-flock/>
- <https://www.woodlandtrust.org.uk/media/1824/wood-wise-woodland-conservation-grazing.pdf>
- High Nature Value Farmland (HNV)



- <https://www.highnaturevaluefarming.org.uk/hnv-in-scotland/>
- <https://www.highnaturevaluefarming.org.uk/casestudies-location/scotland/>
- https://pure.sruc.ac.uk/ws/portalfiles/portal/34256926/McCracken_HNV_November_2020.pdf
- <http://www.hnvlink.eu/>
- Certification Systems
- <https://www.soilassociation.org/our-work-in-scotland/>
- <https://www.biodynamic.org.uk/>

Learning outcomes/competences

- Raising awareness of the benefits of sustainable sheep keeping for society, the environment and biodiversity, and climate change mitigation
- Techniques and information to apply agrosilvopastoralism/agroforestry systems as part of sheep keeping
- Understanding different routes to include ecological management in sheep keeping

Module title

2. Animal Management

Contents

- Summary of the aims of good animal management
- Grazing land
- Types of feed
- Flock health plan
- Breeding and lambing
- Sheep dogs & flock
- Health and welfare

Additional information for each topic (links)

- Summary of the aims of good animal management
- <https://www.fas.scot/downloads/a-guide-to-keeping-sheep/>
- <https://www.fas.scot/mentoring-new-farmers-crofters/>
- <https://www.nationalsheep.org.uk/next-generation/starting-your-own-flock/>
- Grazing land
- <https://slms.scot/>
- <https://www.fas.scot/downloads/the-fas-sheepstock-club/>



- <https://northtalisker.com/>
- <https://www.crofting.org/>
- Types of feed
- <https://www.fas.scot/downloads/trace-element-supplementation-in-sheep-flocks/>
- <https://www.fas.scot/downloads/tn686-conservation-grazing-semi-natural-habitats/>
- <https://www.sruc.ac.uk/media/4y3hc0fv/knowledge-exchange-handbook-forage-first-sheep-systems.pdf>
- <https://www.soilassociation.org/media/3675/conversion-guide-cattle-sheep.pdf>
- Flock health plan
- <https://www.nationalsheep.org.uk/workspace/news-pdfs/nsa-healthy-flocks.pdf>
- <https://www.qmscotland.co.uk/health-and-welfare-0>
- <https://www.farmhealthonline.com/veterinary-questions/animal-health-planning/>
- Breeding and lambing
- <https://www.fas.scot/downloads/a-guide-to-keeping-sheep/>
- <https://www.fas.scot/publication/one-born-every-minute-lambing/>
- <https://www.lantra.co.uk/course/lambing-techniques>
- <https://www.sruc.ac.uk/search/?addsearch=lambing>
- <https://www.accidentalsmallholder.net/livestock/sheep/lambing/>
- <https://www.nationalsheep.org.uk/next-generation/jobs-work-experience/lambing-experience/scotland/>
- Sheep dogs & flock management
 - <https://en-gb.facebook.com/groups/682362622311459/about/>
 - <https://nethhillbordercollies.co.uk/index.html>
 - <https://www.scotland.lantra.co.uk/women-agriculture-practical-training-fund>
- Health and welfare (see Module 7)

Learning outcomes/competences

- Keeping a healthy and sustainable flock
- Producing an animal health plan
- Complying with legal requirements
- Understanding the benefits of sheep dogs for flock management and how to access training

Module title

3. Risk Management and Safety

Contents



- Summary
- Carrying out risk assessments
- Building Safety
- Machinery & Vehicle Safety including Quadbikes
- Livestock Management
- Hazardous Chemicals & Waste
- Accidents & Emergency Protocols
- Lone Working Protocols
- Public Safety
- Mental Health

Additional information for each topic (links)

- Summary
- Carrying out risk assessments
- <https://www.gov.uk/guidance/farm-health-and-safety#health-and-safety-risk-assessments>
- <https://www.fas.scot/downloads/a-summary-publication-that-looks-at-great-interactive-health-and-safety-resources-that-would-be-of-interest-to-scottish-crofters/>
- <https://www.yellowwellies.org/farm-safety-augmented-reality-experience/>
- Building Safety
- <https://www.gov.uk/guidance/farm-health-and-safety#health-and-safety-risk-assessments>
- Machinery & Vehicle Safety including Quadbikes
- <https://www.youtube.com/watch?v=qG1b8PqPL3A>
- <https://appadvice.com/app/smart-farmer/1490687294>
- <https://www.hse.gov.uk/treework/areyou/quad-bike.htm>
- Livestock Management
- <https://www.youtube.com/watch?v=xh2-uwlWARA>
- <https://www.fwi.co.uk/livestock/housing/good-sheep-handling-why-it-matters-and-how-to-improve-it#tabs-1>
- Hazardous Chemicals & Waste
- <https://www.gov.uk/guidance/farm-health-and-safety#health-and-safety-risk-assessments>
- <https://www.hse.gov.uk/agriculture/resources/coshh/index.htm>
- <https://www.hse.gov.uk/agriculture/topics/zoonoses.htm>
- Accidents & Emergency Protocols
- <https://what3words.com/products/what3words-app>
- Lone Working Protocols
- <https://www.fas.scot/downloads/developing-safe-farming-practices-guide-1-lone-working/>
- <https://www.nfuonline.com/archive?treeid=7259>
- Public Safety
- Mental Health
- <https://www.rsabi.org.uk/How-RSABI-can-help>



Learning outcomes/competences

- Awareness of health and safety procedures
- Applying legal standards
- Ability to recognise and avoid risk

Module title

4. Legal Requirements

Contents

- Summary
- Holding, Animal Identification & Movement Registers
- Sheep Inspections
- Animal Health & Welfare Scotland Act
- Health & Safety at Work & Control of Hazardous Substances
- Food Safety
- Slaughter Regulations
- Disposal of Dead Animals, Fallen Stock

Additional information for each topic (links)

- Summary
- <https://www.nationalsheep.org.uk/next-generation/starting-your-own-flock/>
- Holding, Animal Identification & Movement Registers
- <https://www.gov.scot/publications/livestock-identification-and-traceability-guidance/pages/sheep-and-goats/>
- <https://www.ruralpayments.org/topics/your-business/>
- <https://www.gov.uk/guidance/contact-apha#scotland-apha-field-services>
- <https://www.gov.scot/publications/sheep-goat-identification-traceability-guidance-keepers-scotland/>
- <https://www.scoteid.com/contact>
- https://www.scoteid.com/scoteid/sheep_guidance
- Sheep Inspections



- <https://www.gov.scot/publications/sheep-goat-identification-traceability-guidance-keepers-scotland/pages/13/>
- Animal Health & Welfare Scotland Act
- <https://www.legislation.gov.uk/ssi/2010/388/contents/made>
- <https://www.gov.scot/collections/animal-diseases-notifiable-and-non-notifiable-diseases/>
- Health & Safety at Work & Control of Hazardous Substances
- <https://www.hse.gov.uk/agriculture/hsagriculture.htm>
- Food Safety
- <https://www.foodstandards.gov.scot/business-and-industry/safety-and-regulation/regulation-legislation/>
- Slaughter Regulations
- <https://www.gov.scot/publications/animal-slaughter/>
- <https://www.foodstandards.gov.scot/business-and-industry/safety-and-regulation/approval-of-meat-plants/slaughter>
- <https://www.foodstandards.gov.scot/publications-and-research/publications/home-slaughter>
- Disposal of Dead Animals, Fallen Stock
- <https://www.gov.scot/publications/animal-by-products-disposal-guidance/pages/fallen-stock-and-other-animal-carcases/#:~:text=Fallen%20stock%20must%20be%20collected,within%2048%20hours%20of%20death>
- <https://nfsco.co.uk/>

Learning outcomes/competences

- Understanding and complying with the minimum legal standard to keep sheep
- Appropriate record keeping methods
- Understanding and complying with the minimum legal standard for the production of meat and dairy products

Module title

5. Breed Selection

Contents



- Summary
- Rare Breeds
- Keeping Breed Records, Breed Gene Banks
- Understanding of the value of rare breeds and their characteristics and suitability, including national gene bank & flock book

Additional information for each topic (links)

- Summary
- <https://www.nationalsheep.org.uk/for-the-public/culture/sheep-breeds/>
- <https://www.rbst.org.uk/Pages/Category/sheep-watchlist?Take=28>
- <https://forestry.gov.scot/woodland-grazing-toolbox/grazing-management/grazing-regime/selecting-species-and-breed>
- Rare Breeds
- <https://www.rbst.org.uk/Pages/Category/sheep-watchlist?Take=28>
- <https://www.rbst.org.uk/gap-information>
- <https://www.rbst.org.uk/news/rbst-manifesto-for-scotland-2021>
- Keeping Breed Records, Breed Gene Banks
- <https://www.nationalsheep.org.uk/for-the-public/culture/sheep-breeds/>
- <https://www.rbst.org.uk/combined-flock-book>
- <https://www.hebrideansheep.org.uk/resources/flock-books>
- <https://www.rbst.org.uk/gene-bank>

Learning outcomes/competences

- Acquire the ability to choose the appropriate breed for the environment and the business goal
- Include the use and maintenance of rare breeds where appropriate
- Keeping good breed records & communicating with breed organisations

Module title

6. Livestock Protection

Contents



- Summary
- Sheep, Dogwalkers & the Public
- Sea Eagle & Large Raptor Protection

Additional information for each topic (links)

- Summary
- Sheep, Dogwalkers & the Public
- <https://www.parliament.scot/bills-and-laws/bills/dogs-protection-of-livestock-amendment-scotland-bill><https://www.facebook.com/TheSheepGameVlog/videos/1274865502995336/>
- <https://www.outdooraccess-scotland.scot/sites/default/files/2018-10/Taking%20the%20Lead%20-%20information%20sheets.pdf>
- Sea Eagle & Large Raptor Protection
- <https://www.nature.scot/professional-advice/land-and-sea-management/managing-wildlife/sea-eagle-management-scheme>
- <https://scotlandsnature.blog/2022/05/12/enhanced-shepherding-working-together-to-find-solutions-to-a-complex-issue/>
- <https://scotlandsnature.blog/2020/09/11/sea-eagles-and-a-shared-approach-to-wildlife-management/>

Learning outcomes/competences

- Acquiring the ability to recognise and mitigate dangers and discomfort
- Having the ability to choose the best protection techniques
- Understanding the best approaches to minimize dog attacks on sheep
- Understanding the support available to manage potential threat from large raptors (sea eagles)

Module title

7. Animal Welfare

Contents

- Summary
- 5 Freedoms of Animal Welfare
- Sheep Health & Welfare Essentials
- Produce Animal Health Plans
- Appropriate Use of Antibiotics, Wormers & Other Pharmaceuticals



- Adapting Animal Welfare Methods to a Changing Climate

Additional Information (links)

- Summary
- <https://www.legislation.gov.uk/asp/2006/11/contents>
- <https://www.legislation.gov.uk/ssi/2010/388/contents/made>
- <https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2012/04/code-practice-welfare-sheep/documents/00391621-pdf/00391621-pdf/govscot%3Adocument/00391621.pdf>
- 5 Freedoms of Animal Welfare
- Sheep Health & Welfare Essentials
- <https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2012/04/code-practice-welfare-sheep/documents/00391621-pdf/00391621-pdf/govscot%3Adocument/00391621.pdf>
- Produce Animal Health Plans
- <https://sheepvetsoc.org.uk/>
- <https://moredun.org.uk/>
- <https://www.fas.scot/livestock/sheep/sheep-health/>
- <https://www.nationalsheep.org.uk/our-work/policy/on-farm-standards/>
- <https://www.farmhealthonline.com/veterinary-questions/animal-health-planning/>
- Appropriate Use of Antibiotics, Wormers & Other Pharmaceuticals
- <https://www.soilassociation.org/take-action/organic-living/why-organic/better-for-animals/>
- <https://relacs-project.eu/about-relacs/objectives-aims/>
- Adapting Animal Welfare Methods to a Changing Climate

Learning outcomes/competences

- Guarantee animal welfare
- Apply legal requirements
- Modify welfare practices in response to climate change

Module title

8. Business Goals



Contents

- Summary
- Meat Products
- Wool, Fleece, Sheepskin
- Sheep Milk & Cheese Products
- Conservation Grazing & Land Management

Additional information for each topic (links)

- Summary
- Meat Products
- <https://www.foodstandards.gov.scot/business-and-industry/industry-specific-advice/meat-poultry-game>
- <https://www.gov.scot/publications/assessing-viability-sustainability-mobile-abattoirs-scotland/>
- https://www.facebook.com/156896865425/videos/589125038623350/?so=watchlist&_rv=video_home_www_playlist_video_list
- <https://www.facebook.com/Highlands-Islands-mobile-slaughter-house-project-1398629643747732>
- Wool, Fleece, Sheepskin
- <https://www.britishwool.org.uk/>
- <http://www.woolsack.org/>
- <https://www.rhet.org.uk/media/1510/learning-about-wool.pdf>
- <https://www.blackmountains.wales/wp-content/uploads/2021/03/Sustainable-Use-Report.pdf>
- https://www.blackmountaininsulation.com/NatuWool_Brochure.pdf
- <https://www.dalefootcomposts.co.uk/products/wool-compost-double-strength.p.aspx>
- <https://www.wired.co.uk/article/recyclable-wool-boat>
- <https://sutherland-business.co.uk/business.php?id=109>
- Sheep Milk & Cheese Products
- <https://www.sheepdairying.com/>
- Conservation Grazing & Land Management (see module 1)

Learning outcomes/competences

- Defining business goals
- Be aware of different techniques and processing options
- Be aware of any local traditions of food/meat products, wool/fleece/horn, milk & dairy products

Module title



9. Marketing

Contents

- Summary
- Marketing Models for Meat Production
- Marketing Models for Wool, Yarn, Fleece
- Marketing Model for Bedding and Pillows
- Marketing Models for Wool Insulation
- Marketing Models for Fertilisers
- Marketing Models for Sheep Milk/Cheese

Additional Information (links)

- Summary
- Marketing Models for Meat Production
- <https://www.lynbreckcroft.co.uk/>
- www.herbmajesty.co.uk
- www.hughgrierson.co.uk
- <https://www.soilassociation.org/take-action/organic-living/buy-organic/find-an-organic-box-scheme/box-schemes-nationwide/>
- <https://www.qmScotland.co.uk/>
- <https://foodanddrink.scot/>
- <https://www.neighbourfood.co.uk/>
- Marketing Models for Wool, Yarn, Fleece
- www.woolsack.org
- <https://perthfestivalofyarn.uk/our-2022-vendors>
- <https://www.newlanarkspinning.com/pages/about-us>
- <https://www.thebordermill.co.uk/fleece-processing>
- <https://blackisleyarns.co.uk/>
- <https://blackcheviot.com/>
- <https://www.campaignforwool.org/>
- Marketing Model for Bedding and Pillows
- <https://www.etsy.com/uk/shop/UANWOOL>
- Marketing Models for Wool Insulation
- <https://www.thermafleece.com/>
- Marketing Models for Fertilisers
- <https://www.dalefootcomposts.co.uk/>
- Marketing Models for Sheep Milk/Cheese



- <https://www.erringtoncheese.com/>

Learning outcomes/competences

- Recognise the potential for marketing sheep products
- Understand the methods and techniques for successful marketing

Module title

10. Communication

Contents

- Communication Case Studies
- Sheep Networks

Additional information for each topic (links)

- Communication Case Studies
- <https://www.facebook.com/Norwesterleyshepherd>
- <https://www.facebook.com/1garethwynjones>
- <https://www.outdooraccess-scotland.scot/sites/default/files/2018-10/Taking%20the%20Lead%20-%20information%20sheets.pdf>
- Sheep Networks
- <https://www.nationalsheep.org.uk/news/29539/nsa-offers-further-webinars-to-keep-sheep-farmers-updated/>
- <https://www.fas.scot/mentoring-new-farmers-crofters/>
- <https://www.fas.scot/discussion-groups/women-in-agriculture/>
- <https://www.rbst.org.uk/gap-information>
- <https://www.ladieswholamb.co.uk/buddy-network>

Learning outcomes/competences



- Increase social awareness around the benefits and services provided by sheep keeping
- Improve communication to different audiences
- Benefit from the support networks available to sheep keepers

Module title

11. Technology

Contents

- Summary
- Digital Record Keeping
- Training & Funding
- Sustainable Land Management Apps
- Health & Safety

Additional information for each topic (links)

- Summary
- Digital Record Keeping
- https://scoteid.com/scoteid/sheep_guidance
- Training & Funding
- <https://www.skillseeder.com/>
- Sustainable Land Management Apps
- <https://www.nature.scot/professional-advice/social-and-economic-benefits-nature/natural-capital/farming-nature/farmer-led-projects>
- <https://www.sabb.io/>
- Health & Safety
- <https://what3words.com/products/what3words-app>
- <https://appadvice.com/app/smart-farmer/1490687294>
- <https://www.yellowwellies.org/>

Learning outcomes/competences



- Recognise and use new technologies
- Be openminded to new technology and be able to appraise advantages and disadvantages
- Use new technology to improve productivity and job satisfaction



Content of modules in Bulgaria



<p>Module title</p> <p>1. Knowledge of the environment, habitat management and ecosystem services</p>
<p>Contents</p> <p>1. Types of ecosystems on the Earth. Maintenance of ecosystems. Mountain habitats in Bulgaria and Europe</p> <p>2. Biodiversity in habitats in Bulgaria</p>
<p>Additional information for each topic (links)</p> <ol style="list-style-type: none"> 1- https://ec.europa.eu/environment/nature/natura2000/management/docs/FARMING%20FOR%20NATURA%202000-final%20guidance_bg.pdf 2- http://eea.government.bg/bg/soer/2017/biodiversity-nem/ekosistemi-i-ekosistemni-uslugi 3- http://eea.government.bg/bg/ecosystems/index 4- http://e-ecodb.bas.bg/rdb/bg/vol3/05element.html 5- http://eea.government.bg/bg/soer/2013/biodiversity-nem/biologichno-raznoobrazie
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> ● Achieving consciousness of the benefits for society and environment and biodiversity ● Create a more sustainable agrosilvopastoralism system ● Act ecologically

<p>Module title</p> <p>2. Animal management</p>
<p>Contents</p> <ol style="list-style-type: none"> 1. Herd management in the sheep farm. Basic knowledge of animal feeding and feed quality 2. Zoohygienic requirements and basics of veterinary prophylaxis in sheep breeding. Housing of sheep
<p>Additional information for each topic (links)</p> <ol style="list-style-type: none"> 1- http://www.zooferma.com/economic_effectiveness.html 2- https://agri.bg/agrosaveti/zhivotnovadstvo-3/iziskvaniya-pri-otglezhdane-na-ovtse 3- https://www.alfacomerce.com/?p=605 4- https://agriskills.eu/files/bg_quality.pdf 5- https://ovce-kozi.com/2019/08/12/1-%d1%87%d0%b0%d1%81%d1%82-%d1%82%d0%b5%d1%85%d0%bd%d0%be%d0%bb%d0%be%d0%b3%d0%b8%d0%b8-



[%d0%bd%d0%b0-%d1%85%d1%80%d0%b0%d0%bd%d0%b5%d0%bd%d0%b5%d1%82%d0%be-%d0%b2-%d0%be%d0%b2%d1%86%d0%b5%d0%b2/](#)

6- <https://www.naas.government.bg/bg/download?id=159>

7- <https://www.iasri.eu/%D0%B4%D0%BE%D0%BA%D1%83%D0%BC%D0%B5%D0%BD%D1%82%D0%B8/%D0%BD%D0%B0%D1%80%D0%B5%D0%B4%D0%B1%D0%B8/126-%D0%BD%D0%B0%D1%80%D0%B5%D0%B4%D0%B1%D0%B0-%E2%84%96-44-%D0%BE%D1%82-20-%D0%B0%D0%BF%D1%80%D0%B8%D0%BB-2006%D0%B3>

Learning outcomes/competences

- Keep a healthy and sustainable flock
- Produce an animal health plan
- Comply with legal requirements

Module title

3. Risk management and safety for shepherds

Contents

1. Workplace safety procedures
2. Occupational safety practices on the farm

Additional information for each topic (links)

- 1- <https://www.mlsp.government.bg/osiguryavane-na-zdravoslovni-i-bezopasni-usloviya-na-trud-zbut-v-predpriyatiyata>
- 2- <https://anavtograf72.ru/bg/hull/instrukcii-po-tehnike-bezopasnosti-skotnika-molochnoi-fermy-ohrana/>
3. file:///C:/Users/User/Downloads/KE3111450BGN_002.pdf

Learning outcomes/competences

- Awareness of health and safety procedures
- Applying legal standards
- Ability to recognise and avoid risk



<p>Module title</p> <p>4. Legal requirements</p>
<p>Contents</p> <ol style="list-style-type: none"> 1. Requirements for registration of a livestock farm in Bulgaria. COUNCIL DIRECTIVE 92/102 / EEC on the identification of farm animals 2. Ordinance № 16 OF 3 FEBRUARY 2006 for protection and welfare and using of sheep in Bulgaria
<p>Additional information for each topic (links)</p> <ol style="list-style-type: none"> 1. naredba-44 (cmd-international.com) 2. Microsoft Word - ZAKON za veterinarnomedicinskata dejnost.rtf (bfsa.bg) 3. Microsoft Word - Naredba_16_selskostopanski Jivotni.doc (bfsa.bg)
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> • Understanding and complying with the minimum legal standard to keep sheep

<p>Module title</p> <p>5. Breed selection</p>
<p>Contents</p> <ol style="list-style-type: none"> 1.. Origin and domestication of sheep. Exterior condition constitution. Exterior features of sheep from different productive directions 2. Genetic resources in sheep breeding in Bulgaria. Assessment of the risk status of local sheep breeds. 3. Aspects of sheep breeding and selection. Role of inbreeding in populations. Management of sheep reproduction.
<p>Additional information for each topic (links)</p> <ol style="list-style-type: none"> 1- file:///C:/Users/User/Downloads/KARAKACHAN%20SHEEP%20BREED%20(1).pdf 2- https://fermabg.weebly.com/-1054107410941077.html 3- https://ovce-kozi.com/2018/07/01/%D0%B4%D0%BE%D0%BC%D0%B0%D1%88%D0%BD%D0%B0-%D0%BE%D0%B2%D1%86%D0%B0-%D0%BF%D1%80%D0%BE%D0%B8%D0%B7%D1%85%D0%BE%D0%B4/ 4- http://www.referati.org/eksterior-i-konstituciq-na-ovcete-produktivni-napravleniq-specificichni-osobenosti-na-ovcete/58046/ref 5- https://www.iasrj.eu/images/2019/katalog/katalog3-ilovepdf-compressed.pdf



6- <https://edu.uni-sz.bg/book/26.BMF-Yarkov/moit-22.html>

7- <https://edu.uni-sz.bg/book/26.BMF-Yarkov/moit-25.html>

8- <https://docplayer.bg/116270953->

[%D0%B5%D1%84%D0%B5%D0%BA%D1%82%D0%B8%D0%B2%D0%B5%D0%BD-%D1%80%D0%B5%D0%BF%D1%80%D0%BE%D0%B4%D1%83%D0%BA%D1%82%D0%B8%D0%B2%D0%B5%D0%BD-%D0%BC%D0%B5%D0%BD%D0%B8%D0%B4%D0%B6%D0%BC%D1%8A%D0%BD%D1%82-%D0%B2-%D0%BE%D0%B2%D1%86%D0%B5%D0%B2%D1%8A%D0%B4%D1%81%D1%82%D0%B2%D0%BE%D1%82%D0%BE-%D0%B3%D0%BB-%D0%B0%D1%81-%D0%BD%D0%B8%D0%BA%D0%BE%D0%BB%D0%B0-%D0%BC%D0%B5%D1%82%D0%BE%D0%B4%D0%B8%D0%B5%D0%B2-%D0%BE%D1%82%D0%B4%D0%B5%D0%BB-%D0%BE%D0%B2%D1%86%D0%B5%D0%B2%D1%8A%D0%B4%D1%81%D1%82%D0%B2%D0%BE-%D0%BD%D0%B0-%D0%B8%D0%BD%D1%81%D1%82%D0%B8%D1%82%D1%83%D1%82%D0%B0-%D0%BF%D0%BE-%D0%B6%D0%B8%D0%B2%D0%BE%D1%82%D0%BD%D0%BE%D0%B2%D1%8A%D0%B4%D0%BD%D0%B8-%D0%BD%D0%B0%D1%83%D0%BA%D0%B8-%D0%BA%D0%BE%D1%81%D1%82%D0%B8%D0%BD%D0%B1%D1%80%D0%BE%D0%B4-%D0%BD%D0%BE%D0%B2%D0%BD%D0%B8%D1%8F%D1%82.html">o%D1%81%D0%BD%D0%BE%D0%B2%D0%BD%D0%B8%D1%8F%D1%82.html](#)

Learning outcomes/competences

- Acquire the ability to choose the appropriate breed for the environment and the business goal
- To know well the different features of the exterior in sheep
- To know and use different methods of selection in sheep,
- Knows how to control the breeding process in the farm
- Fully aware of the role of preserving local sheep breeds as valuable genetic resources for Europe and the World

Module title

6. Livestock protection

Contents

1. Human – predators conflict – ecological aspects of the problem



2. Livestock guardian dogs - traditional protection of flocks of sheep from predators. How to choose a puppy for the herd, breeding and training. Karakachan dog - an ancient indigenous breed.
3. Herding shepherd dogs. Training of shepherd dogs.

Additional information for each topic (links)

1. https://www.fwff.org/docs/Book_Compens_Funf.pdf
2. https://lciepub.nina.no/pdf/636747687708187901_Programa_mechki_Smolyan_FINAL.PDF
3. <https://bg.amvetspost099.com/5-best-livestock-guard-dogs>
4. <https://bg.cute-animal.net/12453871-herd-protection-dogs-herding-dogs-shepherd-dogs-difference>
5. <https://bg.vredy.org/30-herding-dog-breeds>
6. http://www.kucheta.eu/obuchenie_dresirovka_kucheta_04.html
7. <https://www.karakachan.org/>

Learning outcomes/competences

- Acquire the ability to recognise and mitigate dangers and discomfort
- Have the ability to choose the correct technique or remedy to ensure protection
- Have the ability to handle and train dogs correctly
- Understand sufficient fencing requirements

Module title

7. Animal welfare

Contents

1. What is included in the term "Animal Welfare". Criteria for evaluation of the implementation of the ordinance on Animal Welfare in Bulgaria

Additional information for each topic (links)

1. <https://veganholistic.com/kakvo-e-humanno/>
2. https://www.bfsa.bg/uploads/File/Zdraveopazvane/Humanno_otnoshenie/Saveti/AW_Naruchnik.pdf

Learning outcomes/competences



- Guarantee animal welfare
- Apply legal requirements

Module title

8. End use/business goals and processing (milk, wool, meat). Local food production

Contents

1. Quality of sheep's milk. Traditional dairy foods from sheep's milk in Bulgaria. Yogurt, Tolum cheese, Green cheese from the village of Cherni Vit.
2. Classification and processing of wool. Traditional wool products in Bulgaria.
3. Specifics of sheep meat. Traditional meat products from sheep in Bulgaria. Rhodope barbecue (cheverme), roasted whole lamb, sazdarma.

Additional information for each topic (links)

- 1- <https://www.edna.bg/zdravoslovno/ovcheto-mliako-ot-a-do-beee-4630180>
- 2- <https://lbulgaricum.bg/%D0%B8%D1%81%D1%82%D0%BE%D1%80%D0%B8%D1%8F-%D0%BD%D0%B0-%D0%B1%D1%8A%D0%BB%D0%B3%D0%B0%D1%80%D1%81%D0%BA%D0%BE%D1%82%D0%BE-%D0%BA%D0%B8%D1%81%D0%B5%D0%BB%D0%BE-%D0%BC%D0%BB%D1%8F%D0%BA%D0%BE/>
- 3- https://www.andrey-andreev.com/green_cheese/
- 4- <https://www.ardaadventures.bg/post/%D0%BF%D0%B0%D0%B7%D0%B8%D1%82%D0%B5%D0%BB%D1%8F%D1%82-%D0%BD%D0%B0-%D1%81%D0%B8%D1%80%D0%B5%D0%BD%D0%B5%D1%82%D0%BE-%D0%BE%D1%82-%D0%B1%D0%BE%D1%80%D0%B8%D0%BA%D0%BE%D0%B2%D0%BE>
- 5- <https://farmer-online.com/bg/%D0%BF%D1%80%D0%BE%D0%B4%D1%83%D0%BA%D1%82%D0%B8-%D0%BE%D1%82-%D0%BE%D0%B2%D1%87%D0%B0-%D0%B2%D1%8A%D0%BB%D0%BD%D0%B0-%D1%82%D0%B5%D1%85%D0%BD%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D1%8F-%D0%BF%D1%80%D0%BE%D0%B8%D0%B7%D0%B2%D0%BE%D0%B4%D1%81%D1%82%D0%B2%D0%B5%D0%BD%D0%B8-%D0%BC%D0%B5%D1%82%D0%BE%D0%B4%D0%B8-%D0%BF%D0%BE%D0%BB%D0%B5%D0%B7%D0%BD%D0%B8-%D1%81%D0%B2%D0%BE%D0%B9%D1%81%D1%82%D0%B2%D0%B0/?amp>
- 6- <https://www.rodopskatakan.com/bg/%d1%83%d0%bd%d0%b8%d0%ba%d0%b0%d0%bb%d0%b5%d0%bd-%d0%b1%d1%8a%d0%bb%d0%b3%d0%b0%d1%80%d1%81%d0%ba%d0%b8-%d1%82%d0%b5%d0%ba%d1%81%d1%82%d0%b8%d0%bb/>
- 7- <https://kilim.bg/kilimi-istoria>



- 8- <https://chefandgastro.com/%D0%B0%D0%B3%D0%BD%D0%B5%D1%88%D0%BA%D0%BE-%D0%BC%D0%B5%D1%81%D0%BE-%D0%BE%D1%81%D0%BD%D0%BE%D0%B2%D0%BD%D0%B8-%D1%85%D0%B0%D1%80%D0%B0%D0%BA%D1%82%D0%B5%D1%80%D0%B8%D1%81%D1%82%D0%B8%D0%BA%D0%B8/>
- 9- <https://lubopitko-bg.com/rodopskiqstiqsmeso.html>

Learning outcomes/competences

- Be able to define business goals
- Be aware of techniques and solutions of different processing options
- Be aware of any local traditions

Module title

9. Marketing

Contents

1. Basics of marketing
2. Marketing of sheep products. Marketing of sheep and goats dairy products. Marketing of meat from small ruminants

Additional information for each topic (links)

- 1- <http://fairbulgaria.com/%D0%BE%D1%81%D0%BD%D0%BE%D0%B2%D0%B8-%D0%BD%D0%B0-%D0%BC%D0%B0%D1%80%D0%BA%D0%B5%D1%82%D0%B8%D0%BD%D0%B3%D0%B0/>
- 2- <https://bg.koshachek.com/articles/marketingov-proekt-za-kiselo-mljako.html>
- 3- https://dskbank.bg/docs/default-source/default-document-library/dsk_mesomania_bluepoint.pdf
- 4- <https://agronovinite.com/nasarchavat-konsumatsiyata-na-balgarski-hrani-ot-ovche-mlyako/>

Learning outcomes/competences

- Apply the principles of and potential for marketing as part of shepherding profession
- Apply the knowledge of basic marketing methods and tools

Module title



10. Communication

Contents

1. Skills. Ecofarm in Bulgaria - a specific tourist product, an opportunity to develop tourism in the farm
2. Skills - Sheep farmers organize an annual national sheep festival, where demonstrates good practices in sheep farming, promotes production of traditional dairy and meat products and promotes the successes of sheep selection
3. Social media - The personal history of a sheep breeder inspires the creation of a reality show on the national television in Bulgaria
4. Social media - extensive shepherds participate in a specialized program on agricultural policy in Bulgaria. Discuss leading issues in the sector
5. Social media - extensive shepherds and specialists present in a national television broadcast the qualities of the Karakachan dog as an effective defender of the herds

Additional information for each topic (links)

- 1- [Галерия снимки | Еко ферма и къща за гости Кехайови - Официална страница в Grabo.bg](#)
- 2- [Национален събор на овцевъдите в България \(saborbg.com\)](#)
- 3- [Пътят на една мечта - Фермата - Фермата 2021 \(btv.bg\)](#)
- 4- [Двама братя художници 20 години спасяват емблематични животни - Българска национална телевизия \(bnt.bg\)](#)
- 5- [Пазителят На Стадото - Българското Каракачанско Куче Темата На Нова Тв 14.10.2012 г. - Vbox7](#)

Learning outcomes/competences

- Increase social awareness around the benefits and services provided by shepherds
- Improve the relations to your partners, people involved in different land uses and potential conflict partners
- Have the ability to accept different perspectives and communicate their own position professionally

Module title

11. Technology (GPS, satellite technologies, apps, digitalization ...)

Contents



1. Digitalization in the agricultural sector. Tracking and surveillance of farm animals through digital systems and methods.

Additional information for each topic (links)

- 1- <file:///C:/Users/User/Downloads/Digitalisation%20of%20Bulgarian%20Agriculture%20and%20Rural%20Areas.pdf>
- 2- <https://www.spypet.bg/gps-za-jivotni/trackeri-za-dobityk/gps-tracker-za-sledene-na-kozi-i-ovtse>
- 3- <https://www.olx.bg/d/ad/gps-za-kozi-i-ovtse-traker-tracker-s-bezplatno-onlayn-prosledyavane-CID339-ID852EN.html>
- 4- https://agrobio.elmedia.net/bg/2013-5/editorials/%D1%80%D0%B5%D1%88%D0%B5%D0%BD%D0%B8%D1%8F-%D0%B7%D0%B0-%D1%83%D0%BF%D1%80%D0%B0%D0%B2%D0%BB%D0%B5%D0%BD%D0%B8%D0%B5-%D0%B2-%D0%B6%D0%B8%D0%B2%D0%BE%D1%82%D0%BD%D0%BE%D0%B2%D1%8A%D0%B4%D1%81%D1%82%D0%B2%D0%BE%D1%82%D0%BE_00196.html

Learning outcomes/competences

- Recognise and use new and unknown technology
- Be openminded to new technology and be able to appraise advantages and disadvantages
- Use new technology to improve productivity and job satisfaction

CHAPTER OF GOOD PRACTICES

- SFSCs, direct marketing (link consumers with producers)

[Успешна история за директни доставки на Ферма „Златно руно” - Сар - Hot Spot \(osp.bg\)](#)

[The amazing green cheese from Cherni Vit village, Bulgaria \(andrey-andreev.com\)](#)

[Tcherni Vit Green Cheese - Presìdi Slow Food - Slow Food Foundation \(fondazione Slow Food\)](#)

- Sheepbreeding Associations in Bulgaria

[Дружесто за Отглеждане и Развъждане на маришките овце - dormo.org](#)

[Karakachan Sheep - Presìdi Slow Food - Slow Food Foundation \(fondazione Slow Food\)](#)



[Pecora karakachan - Terra Madre \(terramadresalonedelgusto.com\)](http://terramadresalonedelgusto.com)

[Структура | НОКА \(noka.bg\)](http://noka.bg)

[Международна асоциация Каракачанско куче \(karakachan.org\)](http://karakachan.org)

- Slaughterhouses for small animals

List of approved small ruminant slaughterhouses at the Ministry of Agriculture and Food in Bulgaria complying with Regulation 853/2004/EEC

[BABH \(bfsa.bg\)](http://bfsa.bg)

- Videos (pictures) of extensive shepherding from Bulgaria

1. Seasonal grazing sheep farming has been practiced since antiquity to nowadays and is a major livelihood in the Rhodope Mountains, Bulgaria. On the pictures are present a seasonal summer grazing of sheep in the Rhodope Mountains at 1800 meters above sea level, in Rozhen peak. Traditional summer dairy (“Mandra” in Bulgarian language) on more than 80 years old. Built with natural materials - stone and timber. Here milk is processed and local dairy products are produced - White cheese and Tolum cheese.. The milking of sheep is carried out manually by a traditional method The pen where the sheep stand at the night is surrounded by an electric fence as an effective protection from attack of brown bears. One of the photos shows a female bear with two small bears, photographed by a hunting camera near the pen. Sheep graze here from May to October, then, for the winter period, they descend on nearby villages. The number of ewes in this herd is 400. Photos by Atanas Vuchkov.











2. Transhumance in Stara Planina, Bulgaria, in the territory of National park Central Balkan. The herd of Miroslav Marinov from Zmeevo village with 350 ewes from local sheep breed - Sakarska breed. On the fotos are present a summer pastures in Triglav Peak in Stara Planina 2275 meters above sea level. On the territory of the National park, where sheep graze in the summer, it is forbidden to build permanent monolithic buildings for sheep and for shepherds. For this, the summer camp for living of the shepherds are in the form of tents or light spider buildings – huts. Near the camp, for sheep, a slight enclosure of boards, where they close at the night. The herd is guarded by an excellent working group of Karakachan dogs. Central Balkan National Park has a large population of large carnivores - bears and wolves. Photos by Atanas Vuchkov.









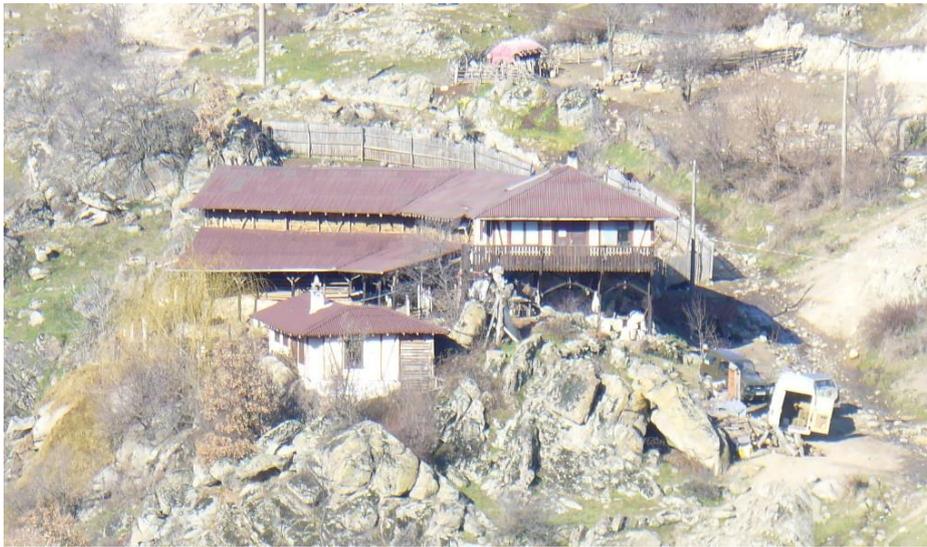




3. Rare breed center in Vlahi village, Kresna municipality, Bulgaria. In this farm is rearing the largest nucleus herd of the ancient breed of Karakachan sheep in Bulgaria – 450 ewes. Transhumance are practiced, as during the summer months the herd embarks on summer grazing in Pirin National Park at an altitude of 2600 meters above sea level below Butin. Peak Through horses climb the necessary food for shepherds, and household items. The herd travels on its own to the summer pastures high in the mountains. The herd is guarding by exelent working Karakachan dogs. High in the mountain there is a shepherd's hut where the shepherds live for several months. Every year the hut is rebuilt due to the destruction of avalanches in winter. The sheep spend the night in light pens made with hand tools During the winter months, the herd is at the



main base in the village of Vlahi. In the winter farm the sheep are lambed and lamb are reared here. In the spring, after weaning of the lambs, the sheep are milked manually. In a small dairy (mandra on Bulgarian) are produced in a traditional way White cheese and Tolum cheese. Photos by Sider Sedefchev and Atanas Vuchkov













[07.06.2019.The youngs Karakachan sheep at the Olympus farm.Breeder Sider Sedefchev. Village of Vlahi - YouTube](#)



Content of modules in Romania



Module title

1. Knowledge of the environment, habitat management and ecosystem services

Contents

1. The importance and role of sheep breeding, current and future strategies. The implications of ecology in animal husbandry and the improvement of the environment
2. Natural Grasslands
3. Cultivated grasslands (planted)
4. Exploitation of grasslands
5. The management measures applicable at farm level necessary to comply with the basic requirements and specific requirements of the agri-environment and climate commitments.

Additional information for each topic (links)

The importance and role of sheep breeding, current and future strategies. The implications of ecology in animal husbandry and the improvement of the environment

- <https://azm.gov.ro/wp-content/plugins/download-attachments/includes/download.php?id=3444>
- <https://www.icpa.ro/documente/CodBunePracticiFerma.pdf>
- <http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice/PT4.pdf>
- <https://www.icdcopalas.ro/documents/realizari-tehnologie.pdf>

Natural Grasslands

- https://propark.ro/images/uploads/file/hnv/HNV_Manual_Managementul_Pajistilor%20-%202004.pdf
- <https://fundatia-adept.org/wp-content/uploads/2018/05/6.-Specii-plante-indicatoare-pajisti-HNV-RO-min.pdf>
- <https://www.pajisti-grassland.ro/2021/05/04/valorificarea-pajistilor-prin-pasunat/>

Cultivated grasslands (planted)

- https://propark.ro/images/uploads/file/hnv/HNV_Manual_Managementul_Pajistilor%20-%202004.pdf
- <http://www.carpatsheep.ro/assets/managementul-pajistilor.compressed.pdf>

Exploitation of grasslands



- https://propark.ro/images/uploads/file/hnv/HNV_Manual_Managementul_Pajistilor%20-%2004.pdf
- https://www.icpa.ro/documente/coduri/Sisteme_si_metode_de_pasunat.pdf

The management measures applicable at farm level necessary to comply with the basic requirements and specific requirements of the agri-environment and climate commitments.

- http://www.inpcp.ro/wp-content/uploads/2021/08/Anexa-2-PA_august_2021.pdf
- http://www.inpcp.ro/wp-content/uploads/2021/08/Brosura-Program-de-actiune_august_2021.pdf
- http://www.inpcp.ro/wp-content/uploads/2021/08/Anexa-1-CBPA_august_2021.pdf
- <https://madr.ro/docs/dezvoltare-rurala/agro-mediu/2022/17.-Ecocondi%C8%9Bionalitate-pliant-2022.pdf>
- <https://madr.ro/docs/dezvoltare-rurala/agro-mediu/2022/19.1-Indrumar-SMR1-.pdf>
- <https://fundatia-adept.org/wp-content/uploads/2018/05/7.-RBAPS-Brosura-Fermieri-RO-min.pdf>

Learning outcomes/competences

- ✓ Awareness of the benefits for society, the environment and biodiversity
- ✓ Creating a sustainable grazing system
- ✓ Application of sustainable management measures

Module title

2. Animal management

Contents

1. Establishing the structure and evolution of livestock
2. Sheep maintenance technologies during the grazing period and during the stall period
3. Milking sheep
4. Supply of raw materials and specific materials

Additional information for each topic (links)



Establishing the structure and evolution of livestock

- <https://azm.gov.ro/wp-content/plugins/download-attachments/includes/download.php?id=3444>
- <http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice/PT28.pdf>
- <http://www.anarz.eu/AnarzAdministratorSite/CMSContent/20220314%20Instructiuni%20privind%20carcasa,%20reproducerea%20si%20inregistrarea%20caracteristicilor%20materne%20la%20speciile%20ovine%20si%20caprine.pdf>

Sheep maintenance technologies during the grazing period and during the stall period

- <https://www.icpa.ro/documente/CodBunePracticiFerma.pdf>
- <https://www.revista-ferma.ro/articole/zootehnie/sisteme-de-crestere-a-oilor-si-caprelor>
- <https://azm.gov.ro/wp-content/plugins/download-attachments/includes/download.php?id=3444>

Milking sheep

- <https://fundatia-adept.org/wp-content/uploads/2018/05/Milkhygiene-training-2011.compressed.pdf>
- <http://agriculturadurabila.ro/wp-content/uploads/2016/06/manual.pdf>
- https://portal.afir.info/Uploads/GHIDUL%20Solicitantului/PNDR2020/Standarde_de_ferma/Ovine_by%20EC_WEB.pdf
- <http://www.anarz.eu/AnarzAdministratorSite/CMSContent/Sec%C8%9Biunea%2016%20-%20Directive%20privind%20%C3%AEnregistrarea%20performan%C8%9Bei%20la%20ovinele%20de%20lapte%20%C8%99i%20caprinele%20de%20lapte.pdf>

Supply of raw materials and specific materials

- <http://www.anarz.eu/AnarzAdministratorSite/CMSContent/Sec%C8%9Biunea%2016%20-%20Directive%20privind%20%C3%AEnregistrarea%20performan%C8%9Bei%20la%20ovinele%20de%20lapte%20%C8%99i%20caprinele%20de%20lapte.pdf>
- https://portal.afir.info/Uploads/GHIDUL%20Solicitantului/PNDR2020/Standarde_de_ferma/Ovine_by%20EC_WEB.pdf

Learning outcomes/competences

- ✓ Planning, monitoring and control of livestock
- ✓ Application of different technologies of animal husbandry
- ✓ Contribution to the development of extensive livestock farming systems;



Module title

3. Risk management and safety for shepherds

Contents

1. Notions of health and safety at work
2. Principles of occupational health and safety
3. Risks regarding the safety of work and the work environment correlated with the situations with potential risk
4. Organization of health and occupational safety.

Additional information for each topic (links)

Notions of health and safety at work

- <https://osha.europa.eu/ro/publications/protecting-health-and-safety-workers-agriculture-livestock-farming-horticulture-and-forestry/view>
- <https://osha.europa.eu/ro/publications/agriculture-and-forestry-sector-serious-osh-challenges>
- <https://osha.europa.eu/ro/publications/protecting-health-and-safety-workers-agriculture-livestock-farming-horticulture-and-forestry/view>

Principles of occupational health and safety

- <https://www.inspectiamuncii.ro/legislatie2>

Risks regarding the safety of work and the work environment correlated with the situations with potential risk

- <https://osha.europa.eu/ro/publications/protecting-health-and-safety-workers-agriculture-livestock-farming-horticulture-and-forestry/view>
- <https://osha.europa.eu/ro/publications/agriculture-and-forestry-sector-serious-osh-challenges>
- <https://osha.europa.eu/ro/publications/protecting-health-and-safety-workers-agriculture-livestock-farming-horticulture-and-forestry/view>

Organization of health and occupational safety.

- <https://www.inspectiamuncii.ro/materiale-de-formare>
- <https://www.inspectiamuncii.ro/materiale-de-constietizare>

Learning outcomes/competences

- ✓ Awareness of health and safety procedures
- ✓ Ability to recognize and avoid risk
- ✓ Application of legal provisions regarding health and safety at work
- ✓ Improving work efficiency and quality of life;

Module title

4. Legal requirements

Contents



1. Pastoral management
2. Feed legislation
3. Register of holding
4. Transport of animals
5. Measures to avoid risks and hazards in the production and storage of dairy products

Additional information for each topic (links)

Pastoral management

- <https://madr.ro/docs/agricultura/fond-funciar/2020/OUG-nr-34-din-23-apr-2013-organizare-administrare-exploatare-pajisti-permanente.pdf>
- https://www.pajisti-grassland.ro/wp-content/uploads/2021/05/Ghid_de_amenajari_pastorale.pdf
- <https://lege5.ro/Gratuit/gm4donbzgu/hotararea-nr-1064-2013-privind-aprobarea-normelor-metodologice-pentru-aplicarea-prevederilor-ordonantei-de-urgenta-a-guvernului-nr-34-2013-privind-organizarea-administrarea-si-exploatarea-pajistilor-p>

Feed legislation

- <https://legislatie.just.ro/Public/DetaliiDocument/210055>
- <http://www.ansvsa.ro/legislatie/nutritie-animala-si-sncu/>
- https://www.eca.europa.eu/Lists/ECADocuments/SR18_31/SR_ANIMAL_WELFARE_RO.pdf
- <https://www.madr.ro/docs/agricultura/2022/ghid-de-bune-practici-in-agricultura-.pdf>

Register of holding

- http://www.ansvsa.ro/download/ghiduri_-_toate/ghid_isp_si_control/G42-Ghid-inspectii-in-exploatatiile-comerciale-de-ovine_caprine.pdf
- <http://www.ansvsa.ro/blog/wpfb-file/registrul-de-exploatare-doc/>
- <http://www.ansvsa.ro/industrie-si-afaceri/sniia/>
- <http://www.anarz.eu/informatii-utile/ovine>

Transport of animals

- <http://www.ansvsa.ro/sanatate-bunastare-si-nutritie-animala/transport-animale/>
- <http://www.animaltransportguides.eu/wp-content/uploads/2017/03/RO-Guides-to-Good-practices-for-the-Transport-of-Sheep.pdf>

Measures to avoid risks and hazards in the production and storage of dairy products

- <https://www.madr.ro/ind-alimentara.html>
- https://fundatia-adept.org/wp-content/uploads/2018/05/HNV_Manual_Legislatie-03.pdf
- <https://www.europarl.europa.eu/news/ro/headlines/society/20200519ST079425/construirea-unui-sistem-alimentar-sustenabil-strategia-ue>
- http://publications.europa.eu/resource/cellar/946e612c-6b31-4805-89bc-b0c90fa881cf.0010.02/DOC_1

Learning outcomes/competences

- ✓ Understanding and enforcing legal animal husbandry requirements
- ✓ Respect the intrinsic needs of animals for food, shelter, movement, mating and exploitation.
- ✓ Application of measures to avoid risks and dangers to the production and storage of dairy products



Module title

5. Breed selection

Contents

1. Scheduling of sheep and goats
2. Breeding and breed selection
3. Mating and calving plan
4. Mounting systems
5. Gestation calendar
6. Performing activities related to the calving of pregnant sheep
7. Raising and weaning lambs

Additional information for each topic (links)

Scheduling of sheep and goats

- <https://www.revista-ferma.ro/articole/zootehnie/structura-efectivelor-de-ovine-modul-de-100-oi>
- <http://www.anarz.eu/legislatie/legislatie-europeana-ovine-si-caprine>
- <http://www.anarz.eu/legislatie/legislatie-nationala-ovine-si-caprine>

Breeding and breed selection

- <http://www.anarz.eu/legislatie/legislatie-europeana-reproductia-animalelor>
- <https://www.icdcopalas.ro/documents/realizari-ameliorare.pdf>
- <http://www.anarz.eu/AnarzAdministratorSite/CMSContent/Resurse%20genetice%202013/20130606%20Lista%20rase%20omologate.pdf>

Mating and calving plan

- <https://www.meat-milk.ro/formule-de-calcul-a-rentabilitatii-turmelor-de-ovine/>

Mounting systems

- <https://www.lumeasatului.ro/articole-revista/cresterea-animalelor/8706-recomandari-privind-pregatirea-si-desfasurarea-campaniei-de-monta-la-ovine.html>

Gestation calendar

- <https://www.cartiagricole.ro/cresterea-ovinelor/>
- <https://www.gazetadeagricultura.info/animale/ovine-caprine/18054-gestatia-la-oi.html>

Performing activities related to the calving of pregnant sheep

- <https://www.revista-ferma.ro/articole/zootehnie/managementul-fatarilor-la-ovine>

Raising and weaning lambs



- http://www.arhiva.lumeasatului.ro/cand-intarcam-mieii_363.html
- <https://www.gazetadeagricultura.info/animale/ovine-caprine/15923-tehnologia-cresterii-mieilor-sugari-in-fermele-de-ovine.html>
- <https://www.revista-ferma.ro/articole/zootehnie/cum-obtii-mieii-grei>

Learning outcomes/competences

- ✓ Acquiring the ability to choose the right breed for the environment and the business objective
- ✓ Improving and conserving the genetic background;
- ✓ Carrying out activities specific to the reproduction and selection of breeds on the farm.

Module title:

6. Livestock protection

Contents

1. Traditional methods for livestock protection
2. Additional modern methods for livestock protection
3. Coexistence of people with large carnivores

Additional information for each topic (links)

Traditional methods for livestock protection

- https://www.pajisti-grassland.ro/wp-content/uploads/2021/05/Ghid_de_amenajari_pastorale.pdf
- https://portal.afir.info/Uploads/GHIDUL%20Solicitantului/PNDR2020/Standarde_de_ferma/Ovine_by%20OEC_WEB.pdf
- <https://academiaromana.ro/ief/doc2020/ateliereleBrailoiu/AteliereleBrailoiu2020/p2-PastoritulCarpatic-traditie-continuitate.pdf>
- <https://apanoastra.ro/constructii-la-stane-si-pe-pasuni-i>

Shepherd dogs

- <https://www.carpathia.org/ro/griva-si-aspra-pe-podium/>
- <https://limbaromana.org/revista/cainele-ciob%C4%83nesc-romanesc-o-abordare-plurivalent%C4%83-v%C4%83zut%C4%83-dinspre-voine%C5%9Fti-covasna/>
- <https://www.ach.ro/site/index.php/ro/rase-romanesti/ciobanesc-romanesc-mioritic>
- <https://www.ach.ro/site/index.php/ro/rase-romanesti/ciobanesc-romanesc-carpatin>
- <https://www.ach.ro/site/index.php/ro/rase-romanesti/ciobanesc-romanesc-de-bucovina>
- <https://www.ach.ro/site/index.php/ro/rase-romanesti/ciobanesc-romanesc-corb>

Additional modern methods for livestock protection

- <https://milvus.ro/images/PDF/Lupul.pdf>
- <https://www.edu-wildlife.eu/index.php/ro/specie/urs>
- <http://www.carnivoremari.ro/rasul>



- https://www.carpathia.org/wp-content/uploads/2022/05/FCC-LIFE_Brosura-conflicte-om-animale-salbatice_20201209_P.pdf

Coexistence of people with large carnivores

- https://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/92_RD_leaflet_RO.1.pdf
- <https://www.eurolargecarnivores.eu/en/factsheets>
- <https://milvus.ro/publication/carnivore-si-oameni-este-posibila-convietuirea-lor-pasnica-in-romania/>
- <https://wwf.ro/noutati/povesti-de-succes/viata-unui-fermier-din-rucar-la-intersectia-cu-padurile-populate-de-ursi/>
- https://www.carpathia.org/wp-content/uploads/2022/05/FCC-LIFE_Brosura-conflicte-om-animale-salbatice_20201209_P.pdf

Learning outcomes/competences

- ✓ Acquiring the ability to recognize and mitigate dangers and discomfort
- ✓ Ability to choose the right technique or method to ensure protection
- ✓ Ability to raise and train dogs correctly
- ✓ Understanding the minimum requirements for people living with large carnivores
- ✓ Minimizing the negative impact of large carnivores on animal husbandry;

Module title

7. Animal welfare

Contents

1. Feeding plan, calculation of feed rations and their control
2. Animal health and complementary medicine
3. Animal welfare during transport
4. Shelter microclimate

Additional information for each topic (links)

Feeding plan, calculation of feed rations and their control

- https://www.pajisti-grassland.ro/wp-content/uploads/2021/05/Ghid_de_amenajari_pastorale.pdf
- <https://azm.gov.ro/wp-content/plugins/download-attachments/includes/download.php?id=3444>

Animal health and complementary medicine

- <https://www.revista-ferma.ro/articole/zootehnie/zece-boli-care-diminueaza-sever-productia-ovinelor>
- http://www.veterinarypharmacon.com/docs/1881-2018_Curs_Fitoterapie.pdf
- https://agriculture.ec.europa.eu/farming/organic-farming/organic-production-and-products_ro
- <http://agriculturadurabila.ro/wp-content/uploads/2016/06/manual.pdf>



- http://www.ansvsa.ro/download/ghiduri - toate/ghid_bunastare_animala/Transport-Ghid-privind-protectia-si-bunastarea-animalelor-in-timpul-transportului.pdf

Animal welfare during transport

- https://eur-lex.europa.eu/legal-content/RO/TXT/HTML/?uri=LEGISSUM%3AAnimal_welfare
- <https://op.europa.eu/webpub/eca/special-reports/animal-welfare-31-2018/ro/>

Shelter microclimate

- <http://www.ansvsa.ro/sanatate-bunastare-si-nutritie-animala/bunastarea-animalelor/>
- <http://www.ansvsa.ro/sanatate-bunastare-si-nutritie-animala/sanatatea-animalelor/boli-ovine/>
- <https://legislatie.just.ro/Public/DetaliuDocument/210055>
- https://portal.afir.info/Uploads/GHIDUL%20Solicitantului/PNDR2020/Standarde_de_ferma/Ovine_by%20EC_WEB.pdf
- <http://www.carpatsheep.ro/assets/saivane--brosura.compressed.pdf>
- <https://azm.gov.ro/wp-content/uploads/2020/09/Ghid-autorizare-constructii.pdf>

Learning outcomes/competences

- ✓ Ensuring animal welfare
- ✓ Application of legal requirements
- ✓ Improving the quality of life of animals

Module title

8. End use/business goals and processing (milk, wool, meat). Local food production

Contents

1. Production management: raising sheep for milk, wool or meat.
2. Milk processing
3. Certification of the products obtained (PGI, PG, PDO, PM, PT, etc.)
4. Make a budget for the needs of the farm
5. Designing a business plan for the farm
6. Obtaining the necessary financing for the establishment of a farm or for the development of the already existing activity.

Additional information for each topic (links)

Production management: raising sheep for milk, wool or meat.

- <https://azm.gov.ro/wp-content/plugins/download-attachments/includes/download.php?id=3444>
- <http://agriculturadurabila.ro/wp-content/uploads/2016/06/manual.pdf>



Milk processing

- <http://www.carpatsheep.ro/assets/retete-si-specificatii--brosura.compressed.pdf>
- <https://propark.ro/ro/publicatii/norme-si-conduita-in-procesarea-produselor-din-zonele-cu-inalta-valoare-naturala-385.html>

Certification of the products obtained (PGI, PG, PDO, PM, PT, etc.)

- <https://cpac.afir.info/ToateProdusele>
- <https://produsmontan.ro/>
- https://agriculture.ec.europa.eu/farming/organic-farming/becoming-organic-farmer_ro
- https://wwfeu.awsassets.panda.org/downloads/ghid_web_pagini.pdf
- <https://www.madr.ro/docs/ind-alimentara/2020/beneficii-inregistrare-pe-scheme-de-calitate-nat-si-europene-prod-agroalimentare.pdf>
- <https://www.madr.ro/docs/ind-alimentara/2019/ghid-depunere-online-produse-traditionale.pdf>
- https://agriculture.ec.europa.eu/farming/geographical-indications-and-quality-schemes/geographical-indications-and-quality-schemes-explained_ro

Make a budget for the needs of the farm

- <https://agrimanet.ro/agricultura-pe-hartie-importanta-si-utilizarea-bugetului-in-ferma/>
- <https://fundatia-adept.org/wp-content/uploads/2018/05/From-subsistence-to-profit-2011.compressed.pdf>

Designing a business plan for the farm

- <https://cursuri-antreprenori.eu/wp-content/uploads/2020/05/Curs-complementar-Competente-antreprenoriale.pdf>
- <https://educatieagricola.ro/programe-si-resurse/educatie-antreprenoriala/indrumar-de-educatie-antreprenoriala/>
- <https://fundatia-adept.org/wp-content/uploads/2018/05/From-subsistence-to-profit-2011.compressed.pdf>
- <https://www.afir.info/>

Obtaining the necessary financing for the establishment of a farm or for the development of the already existing activity.

- <http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice/PT6.pdf>
- <https://wwf.ro/resurse/publicatii/>
- https://propark.ro/images/uploads/file/hnv/HNV_Manual_Finantare%20-%202004.pdf
- https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap_ro
- <https://www.afir.info/>

Learning outcomes/competences

- ✓ Ability to define business objectives
- ✓ Awareness of the techniques and solutions of different processing options
- ✓ Awareness of local traditions
- ✓ Production of food and other agricultural goods in sufficient quantity, healthy, of superior quality and with high added value;
- ✓ Restoring and preserving the values of traditional local products
- ✓ Attracting funding sources for the establishment and / or development of the activity



<p>Module title</p> <p>9. Marketing</p>
<p>Contents</p> <ol style="list-style-type: none"> 1. Marketing of agricultural products 2. Demand and supply 3. The 4 P's (Product, Price, Place, Promotion) 4. Market strategy 5. Promotion strategy
<p>Additional information for each topic (links)</p> <p>Marketing of agricultural products</p> <ul style="list-style-type: none"> ○ http://www.carpatsheep.ro/assets/ghidmedrestotal.compressed2.pdf ○ https://propark.ro/images/uploads/file/hnv/HNV_Manual_Marketing%20-%2004.pdf ○ http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice/PT29.pdf <p>Demand and supply</p> <ul style="list-style-type: none"> ○ https://propark.ro/images/uploads/file/hnv/HNV_Manual_Marketing%20-%2004.pdf <p>The 4 P's (Product, Price, Place, Promotion)</p> <ul style="list-style-type: none"> ○ https://propark.ro/images/uploads/file/hnv/HNV_Manual_Marketing%20-%2004.pdf <p>Market strategy</p> <ul style="list-style-type: none"> ○ https://propark.ro/images/uploads/file/hnv/HNV_Manual_Marketing%20-%2004.pdf ○ https://fundatia-adept.org/wp-content/uploads/2018/05/BrosuraHNV_INN3-web-min.pdf <p>Promotion strategy</p> <ul style="list-style-type: none"> ○ https://www.madr.ro/de-la-ferma-la-consumator.html ○ https://agriculture.ec.europa.eu/common-agricultural-policy/market-measures/promotion-eu-farm-products_ro ○ https://fundatia-adept.org/wp-content/uploads/2018/05/Marketing_A5-min.pdf ○ https://fundatia-adept.org/wp-content/uploads/2018/05/From-subsistence-to-profit-2011.compressed.pdf ○ http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice/PT18.pdf ○ http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice/PT29.pdf
<p>Learning outcomes/competences</p> <ul style="list-style-type: none"> ✓ Applying the principles and potential of marketing as part of the pastoral profession ✓ Applying knowledge of basic marketing methods and tools ✓ Development of organizational skills ✓ Cultivating strategic thinking ✓ Planning traditional business activities that adapt digital marketing solutions



Module title

10. Communication

Contents

1. Communication in the official language
2. Communication in foreign languages
3. Social communication
4. Types of communication
5. Networks and communication platforms for farmers
6. Exchange of knowledge between farmers
7. Intergenerational knowledge transfer
8. Barriers to communication

Additional information for each topic (links)

Communication in the official language

- [https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604\(01\)&from=RO](https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604(01)&from=RO)
- <https://gramaticalimbiromane.ro/>

Communication in foreign languages

- [https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604\(01\)&from=RO](https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604(01)&from=RO)
- <https://www.britishcouncil.ro/engleza/invata-online/gratis>

Social communication

- [https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604\(01\)&from=RO](https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604(01)&from=RO)
- <https://manuale.edu.ro/manuale/Clasa%20a%20VIII-a/Educatie%20sociala/Uy5DLiBDRCBQUkVTUyBT/>

Types of communication

- https://propark.ro/images/uploads/file/HNV_Manual_Comunicare%20-%202004.pdf

Networks and communication platforms for farmers

- <https://civitas.ro/wp-content/uploads/2021/07/Layout-OK.pdf>
- <https://civitas.ro/wp-content/uploads/2018/10/MODEL-INTERVENTIE-%C3%8EN-COMUNITATE-final.pdf>
- <https://propark.ro/ro/publicatii/asocierea-suport-de-curs-pentru-facilitatorii-comunitari-382.html>
- https://static.anaf.ro/static/10/Anaf/AsistentaContribuabili_r/Ghid_ONG_2019.pdf
- <https://www.onrc.ro/index.php/ro/inmatriculari/persoane-juridice/coo-agricole-de-gradul-i-si-gradul-ii>

Exchange of knowledge between farmers

- https://ec.europa.eu/eip/agriculture/sites/default/files/eip-agri_brochure_knowledge_systems_2018_ro_web.pdf
- https://agriculture.ec.europa.eu/farming/animal-products/milk-and-dairy-products_ro



Intergenerational knowledge transfer

- https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/income-support/young-farmers_ro
- <https://www.eesc.europa.eu/ro/our-work/opinions-information-reports/information-reports/evaluation-impact-cap-generational-renewal>

Barriers to communication

- <https://propark.ro/ro/publicatii/comunicare-suport-de-curs-pentru-facilitatorii-comunitari-383.html>

Learning outcomes/competences

- ✓ Increase social awareness around the benefits and services provided by shepherds
- ✓ Improving relations with their partners, people involved in land use and potential partners in conflict
- ✓ Ability to accept different perspectives and communicate one's position professionally

Module title

11. Technology (GPS, satellite technologies, apps, digitalization ...)

Contents

1. Basic skills in mathematics, science and technology
2. General data organization
3. Farm management applications
4. Use of appropriate software for the occupation

Additional information for each topic (links)

Basic skills in mathematics, science and technology

- <https://ec.europa.eu/social/main.jsp?catId=1146&langId=ro>
- [https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604\(01\)&from=RO](https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604(01)&from=RO)
- <https://www.meteoromania.ro/despre-noi/cercetare/agrometeorologie/>
- <https://lege5.ro/gratuit/he3dkmbz/principalele-unitati-de-masura-derivate-si-alte-unitati-de-masura-legale-lege-27-1978?dp=ge3tsmzwge4to>
- <https://educatieagricola.ro/agricultura-4-0/agricultura-durabila/>

General data organization

- https://www.rndr.ro/documente/eip-agri_brochure_digital_revolution_2018_ro_web.pdf

Farm management applications

- https://www.rndr.ro/documente/eip-agri_brochure_digital_revolution_2018_ro_web.pdf
- <https://www.smart-akis.com/>

Use of appropriate software for the occupation



- https://apia.org.ro/wp-content/uploads/2022/03/GHID-utilizare-IPA_ONLINE_Editia-VI-2022.pdf
- <https://www.madr.ro/docs/ind-alimentara/2019/ghid-depunere-online-produse-traditionale.pdf>
- <https://cpac.afir.info/>
- https://apia.org.ro/wp-content/uploads/2022/01/Addendum-National_2022.pdf
- https://www.rndr.ro/documente/eip-agri_brochure_colaborare_pentru_inovare_2018_ro_web.pdf
- <https://apia.org.ro/aplicatie-rom-fermier/>
- <http://www.registrulgenealogic.ro/despre-aplicatie/>

Learning outcomes/competences

- ✓ Recognition and use of new and unknown technologies
- ✓ Openness to new technologies and the ability to evaluate the advantages and disadvantages
- ✓ Use of new technologies to improve productivity and job satisfaction

CHAPTER OF GOOD PRACTICES

SFSCs, direct marketing (link consumers with producers)

- <https://www.madr.ro/promovare-produselor-agroalimentare.html>
- <https://www.madr.ro/de-la-ferma-la-consumator.html>
- <http://relatiicontractualelapte.apia.org.ro:8090/rcifop/#/>
- <https://apia.org.ro/directia-comert-exterior-i-promovare-produse-agricole/program-promovare-produse-agricole-i-ecologice/>
- <https://apia.org.ro/directia-comert-exterior-i-promovare-produse-agricole/comert-exterior/>
- https://fundatia-adept.org/wp-content/uploads/2018/05/food_culture_brochure.compressed.pdf
- https://fundatia-adept.org/wp-content/uploads/2018/05/brosura_strategie_A5_tipar-1.compressed-min.pdf
- <https://civitas.ro/proiecte/helyenvalohelyi/>

Associations and networking

- <https://www.madr.ro/cooperative-agricole.html>
- <https://propark.ro/ro/publicatii/asocierea-suport-de-curs-pentru-facilitatorii-comunitari-382.html>
- <https://fundatia-adept.org/wp-content/uploads/2018/05/Asocierea.pdf>
- https://fundatia-adept.org/wp-content/uploads/2018/05/Cooperation_A5.compressed.pdf
- https://fundatia-adept.org/wp-content/uploads/2018/05/Tourism_A5-min.pdf
- <https://azm.gov.ro/inovare/despre-cooperative/>
- https://static.anaf.ro/static/10/Anaf/AsistentaContribuabili_r/Ghid_ONG_2019.pdf
- https://www.rndr.ro/documente/pei-agri/PEI-Agri_brosura_ReteaPEI_-_update_2015_2015_RO_web.pdf
- <https://civitas.ro/wp-content/uploads/2018/10/MODEL-INTERVENTIE-%C3%8EN-COMUNITATE-final.pdf>



- https://www.euromontana.org/wp-content/uploads/2014/08/2007-11-16_euromontana_defis_du_pastoralisme_en.pdf

Slaughterhouses for small animals

- <https://www.edu-veterinar.ro/files/download/prezentari/bunastarea-animalelor/Bunastarea-animalelor-in-unitatile-de-taiere.pdf>
- http://www.ansvsa.ro/download/ghiduri_-_toate/ghid_bunastare_animala/Sacrificare-Ghid-privind-protectia-animalelor-in-timpul-sacrificarii-mamifere.pdf
- <https://www.madr.ro/comunicare/4795-opportunitati-de-accesare-a-fondurilor-europene-pentru-abatoare-mobile.html>
- <https://www.afir.ro/finantare/finantare-in-agricultura/procesare-agricola/>

Fertilizer as an instrument of marketing

- <https://www.madr.ro/fitosanitar.html>
- <https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:62012CC0113&from=EN>
- <https://legislatie.just.ro/Public/DetaliuDocument/245237>
- <https://legislatie.just.ro/Public/DetaliuDocumentAfis/245311>
- http://www.apia.org.ro/files/pages_files/Ghid_platforme_individuale.pdf
- https://www.rndr.ro/documente/7_Promovarea_bunelorpractici_-_GLL_Sibiu.pdf
- https://www.icpa.ro/documente/CODBPA_Nitrati.pdf

Funding options

- <https://www.madr.ro/planul-national-strategic-pac-post-2020/implementare-ps-pac-2023-2027/ps-pac-2023-2027.html>
- <https://www.madr.ro/cresterea-animalelor/ovine-si-caprine.html>
- <https://www.madr.ro/proiecte-tip-in-atentia-beneficiarilor.html>
- <https://www.afir.ro/>
- <https://apia.org.ro/>
- <https://apia.org.ro/directia-masuri-de-piata/>
- <https://www.madr.ro/axa-leader.html>
- https://fundatia-adept.org/wp-content/uploads/2018/05/HNV_Manual_Finantare-04.pdf
- <https://legislatie.just.ro/Public/DetaliuDocumentAfis/210927>

New products

- <https://www.madr.ro/agricultura-ecologica.html>
- https://www.rndr.ro/documente/brochure_Knowledge_systems_RO_web.pdf
- https://www.rndr.ro/documente/brochure_EIP_short_food_supply_chains_RO_web.pdf
- https://www.euromontana.org/wp-content/uploads/2014/08/guidelines_euomarc_report_final_en_a4.pdf
- https://www.euromontana.org/wp-content/uploads/2022/01/Booklet-BP-2022_EN.pdf



- <https://www.euromontana.org/wp-content/uploads/2018/01/Brochure-Good-Practices-1.pdf>
- https://www.euromontana.org/wp-content/uploads/2020/01/2020_01_29-Euromontana-2020-booklet-of-good-practices_EN_compressed.pdf

Training possibilities (training database)

- www.agromro.ro
- <https://azm.gov.ro/cursuri-de-formare-profesionala/>
- http://intern.anc.edu.ro/virtualanc/crud/standarde/standarde_occupationale/brain/upload/Oier.montan.pdf
- <http://www.anc.edu.ro/rncp/>
- <https://educatieagricola.ro/licee/>
- http://www.anc.edu.ro/registru_rnpp/
- <http://www.anc.edu.ro/registrul-national-al-calificarilor-din-invatamantul-superior-rncis/>
- <https://worldvision.ro/ce-facem/dezvoltare-economica-rurala/mandru-sa-fiu-fermier/#fermier-activitati>
- <https://mmuncii.ro/j33/index.php/ro/2014-domenii/munca/programe-si-strategii/5162>

Videos of shepherding from every partner, with no talking, only images, to see how live shepherds in other countries

- <https://www.rndr.ro/politica-agricola-comuna/sate-inteligente/video-sate-inteligente.html>
- <https://stirileprotv.ro/stiri/social/copiii-din-alba-care-si-urmeaza-parintii-in-transhumanta-in-creierul-muntilor-e-un-fel-de-loc-fermecat.html>
- <https://stirileprotv.ro/stiri/social/ciobanii-au-inceput-transhumanta-copii-isi-urmeaza-parintii-pana-in-varf-de-munte-ze-munte-foarte-frumos.html>
- <https://stirileprotv.ro/divers/o-traditie-straveche-romaneasca-este-pe-cale-sa-apuna.html>
- <https://stirileprotv.ro/stiri/actualitate/vacanta-cu-o-luna-mai-devreme-pentru-copiii-din-alba-unde-urmeaza-sa-plece-cu-familiiile.html>
- <https://transhumance.ro/>
- <https://transhumance.ro/en/home/>
- <https://wwf.ro/noutati/povesti-de-succes/viata-unui-fermier-din-rucar-la-intersectia-cu-padurile-populate-de-ursi/>
- <https://wwf.ro/noutati/povesti-de-succes/povestile-de-succes-ale-convietuirii/>
- <https://explorambuzaul.ro/2021/04/30/pastoritul-ocupatie-ancestrala-pe-cale-de-disparitie/>
- <https://complexulmuzealbn.ro/ro/etnografie-arta-populara/pastoritul>
- <https://suceavalive.ro/pastoritul-oilor-o-pasiune-dusa-cu-dragoste-din-generatie-in-generatie-la-vatra-moldovitei/>