

# Participant Handbook

Sector  
**Agriculture and Allied**

Sub-Sector  
**Agriculture and allied activity**

Occupation  
**Livestock Health Management**

Reference ID: **AGR/Q4804**



**Animal Health Worker**

### Published by

Mahendra Publication Pvt. Ltd  
E-42,43,44,Sector-7 Noida -201301,  
Uttar Pradesh -India

All Rights Reserved,

First Edition, March 2016

ISBN 978-1-111-22222-45-7

Printed in India at

### Copyright © 2016

Agriculture Skill Council of India  
6th Floor, GNG Tower, Plot No.10  
Sector - 44 Gurgaon - 122004, Haryana, India  
Email: [info@asci-india.com](mailto:info@asci-india.com)  
website: [asci-india.com](http://asci-india.com)  
Phone: 0124-4288322, 4047488, 4046678

### Disclaimer

The information contained herein has been obtained from sources reliable to Agriculture Skill Council of India. Agriculture Skill Council of India disclaims all warranties to the accuracy, completeness or adequacy of such information. Agriculture Skill Council of India shall have no liability for errors, omissions, or inadequacies, in the information contained herein, or for interpretations thereof. Every effort has been made to trace the owners of the copyright material included in the book. The publishers would be grateful for any omissions brought to their notice for acknowledgements in future editions of the book. No entity in Agriculture Skill Council of India shall be responsible for any loss whatsoever, sustained by any person who relies on this material. The material in this publication is copyrighted. No parts of this publication may be reproduced, stored or distributed in any form or by any means either on paper or electronic media, unless authorized by the Agriculture Skill Council of India.





**Shri Narendra Modi**  
Prime Minister of India

“ Skilling is building a better India.  
If we have to move India towards  
development then Skill Development  
should be our mission. ”



## Certificate

### COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**AGRICULTURE SECTOR SKILL COUNCIL**

for

### SKILLING CONTENT : PARTICIPANT HANDBOOK

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: 'Animal Health Worker' QP No. 'AGR/Q4804 NSQF Level 3'

Date of Issuance: **Sept 26<sup>th</sup>, 2016**

Valid up to\*: **Sept 30<sup>th</sup>, 2018**

*\*Valid up to the next review date of the Qualification Pack or the  
'Valid up to' date mentioned above (whichever is earlier)*

Authorised Signatory  
(Agriculture Skill Council of India)

## Acknowledgements

We are thankful to all organizations and individuals who have helped us in preparation of this Participant manual. We also wish to extend our gratitude to all those who reviewed the content and provided valuable inputs for improving quality, coherence and content presentation of chapters. This handbook will lead to successful roll out the skill development initiatives, helping greatly our stakeholders particularly trainees, trainers and assessors etc. We are thankful to our Subject Matter Expert Dr. Miftahul Islam Barbaruah who has given the content and helped us in preparation of Participant Handbook.

It is expected that this publication would meet the complete requirements of QP/NOS based training delivery, we welcome the suggestions from users, Industry experts and other stakeholders for any improvement in future.

## About this book

An Animal Health Worker also known as Community Animal Health Worker / Community Resource Person (Veterinary ) or Livestock Service Provider is a person selected from his/her own community to provide a set of "Minor Veterinary services" required for a given job role as per the provision of Indian Veterinary Council Act ( No.52 of 1984 ). He / she works under indirect or distant supervision of registered veterinarian, under over-all monitoring of any registered development / private / producer led agency. An Animal Health Worker should have a mind for science, belongingness to the community, compassion for animals, good leadership, and communication and observation skills. He / she should be physically strong and have manual dexterity to perform on the job. The trainee will enhance his/her knowledge under the guidance of the trainer in the following skills:

- **Knowledge and Understanding:** Adequate operational knowledge and understanding to perform the required task
- **Performance Criteria:** Gain the required skills through hands on training and perform the required operations within the specified standards
- **Professional Skills:** Ability to make operational decisions pertaining to the area of work.

The handbook incorporates well-defined roles for preventive health care, assistance in contagious disease control and basic first aid services to farm animal and poultry, mostly in the outdoor setting. The participant should be result oriented and responsible for his/her own working and learning. The participant should also be able to demonstrate skills of using various tools and decision making for instant problem solving.

We wishes all the best for your future in the Animal Husbandry Sector

## Symbols Used



Key Learning  
Outcomes



Steps



Time



Tips



Notes



Unit  
Objectives



Exercise

## Table of Contents

S.No.	Modules and Units	Page No.
<b>1.</b>	<b>Introduction</b>	<b>1</b>
	Unit 1.1 – Rural livelihood and livestock farming.	3
	Unit 1.2 – Knowing your village	11
	Unit 1.3 – Role and responsibility of animal health worker	14
	Unit 1.4 – Continuous learning and support system for referral	18
<b>2.</b>	<b>Controlling and restraining of animals.(AGR/N4801)</b>	<b>20</b>
	Unit 2.1 – External body parts and organ system of farm animals.	22
	Unit 2.2 – Approaching and moving animals	30
	Unit 2.3 – Common behavior of farm animals.	34
	Unit 2.4 - Use of common methods and tools for restraining	37
	Unit 2.5 – Personal safety	46
<b>3.</b>	<b>Implementing regular preventive animal health care program (AGR/N4802)</b>	<b>49</b>
	Unit 3.1 –Animal identification and record keeping	52
	Unit 3.2 – Observation of environment and history taking.	61
	Unit 3.3 –Routine examination of health of animals	66
	Unit 3.4 – Causes and ways of transmission of diseases	72
	Unit 3.5 – Identify common diseases.	77
	Unit 3.6 – Zoonotic diseases.	84
	Unit 3.7 – Concept of notifiable diseases	87
	Unit 3.8 – Preventing diseases in animals	89
<b>4.</b>	<b>Veterinary First Aid (AGR/N4805)</b>	<b>97</b>
	Unit 4.1 –Emergency conditions and pre-disposing factors	99
	Unit 4.2 –Common first aid measures	108
	Unit 4.3 –Handling superficial wounds /Abscess.	112
	Unit 4.4 – Handling of fracturers and horn injury	118
	Unit 4.5 - First aid during animal birth	121



Unit 4.6 – Handling poisoning	123
Unit 4.7 – Administration of medicine	127
Unit 4.8 – Safety measures	132
<b>5. Assisting government in animal Disease control (AGR/N4807)</b>	<b>134</b>
Unit 5.1 -Some important concepts	136
Unit 5.2 – Introduction to disease surveillance and monitoring	144
Unit 5.3 – Livestock markets	148
Unit 5.4 – Cleaning and disinfection of premises	152
Unit 5.5– Cleaning and disinfection of premises	156
Unit 5.6 – Animal disease reporting	159
Unit 5.7 – Leadership for local resource mobilization	161
<b>6. Assisting in veterinary extension services (AGR/N4808)</b>	<b>163</b>
Unit 6.1 –Understanding extension services	165
Unit 6.2 –Understanding production cycle of farm animals	174
Unit 6.3 – Basic principles of animal housing	176
Unit 6.4 – Livestock feeding	181
Unit 6.5 – Body condition scoring	192
Unit 6.6 – Selecting animals	197
Unit 6.7 -Hygienic milking and livestock product handling	202
Unit 6.8 – Using communication devices	205
<b>7. Development program implementation and marketing in livestock sector (AGR/N4810)</b>	<b>208</b>
Unit 7.1 – Sustainable development and goal for same	210
Unit 7.2 – Basic of development project management	213
Unit 7.3 – Business management	219
Unit 7.4 – Expectation from development worker	225





<b>8.</b>	<b>Animal Welfare, breed conservation and disaster management (AGR /N4813)</b>	<b>227</b>
	Unit 8.1 -Animal Welfare	229
	Unit 8.2 – Conservation of indigenous livestock	234
	Unit 8.3 – Disaster Management	236
<b>9.</b>	<b>Breeding in small farm animals (AGR/N4821)</b>	<b>240</b>
	Unit 9.1- Understanding the reproductive System	242
	Unit 9.2- Basic of animal genetics	246
	Unit 9.3–Signs of heat	250
	Unit 9.4 -Artificial insemination	253
	Unit 9.5 – Parturition (Giving birth)	264
	Unit 9.6 – Managing unproductive animals (Reproductive failure)	269
<b>10.</b>	<b>Employability &amp; Entrepreneurship Skills</b>	<b>271</b>
	Unit 10.1 – Personal Strengths & Value Systems	275
	Unit 10.2 – Digital Literacy: A Recap	294
	Unit 10.3 – Money Matters	300
	Unit 10.4 – Preparing for Employment & Self Employment	311
	Unit 10.5 – Understanding Entrepreneurship	320
	Unit 10.6 – Preparing to be an Entrepreneur	342







**Skill India**  
कौशल भारत-कुशल भारत



सत्यमेव जयते  
GOVERNMENT OF INDIA  
MINISTRY OF SKILL DEVELOPMENT  
& ENTREPRENEURSHIP



N · S · D · C  
National  
Skill Development  
Corporation

Transforming the skill landscape



**ASCI**  
Agriculture Skill Council of India

# 1. Introduction

Unit 1.1 – Rural Livelihood and livestock farming

Unit 1.2 – Knowing your village

Unit 1.3 – Role and responsibility of animal health worker

Unit 1.4 – Continuous learning and support system.



## Key Learning Outcomes

**At the end of this module, you will be able to:**

1. Understand the meaning of livelihood
2. Discuss the importance of livestock and poultry farming in rural livelihood.
3. Better understand institutions and resources of your village.
4. Understand the role and responsibility of Animal Health Worker
5. Understand the importance of continuous learning and identify referral support system.

## UNIT 1.1: Rural Livelihood and Livestock farming

### Unit Objectives



At the end of this unit, you will be able to:

- Understand the meaning of 'livelihood'
- Learn definitions and discuss the importance of livestock and poultry farming in rural livelihood

### 1.1.1 What is livelihood?

Your livelihood is the job you work at to earn the income that supports you

In simple word it is a way of earning money in order to live..



Fig 1.1.1 Rural Livelihood and Livestock farming

Photo credit: vethelplineindia.co.in

How can one improve his or her livelihood or livelihood of someone?

In technical terms, Livelihood is defined as Capabilities, Assets and Activities that people utilizes to earn living. (DFID,2000). You can remember this by expressing it as 'livelihood equation'.

**Livelihood = Capabilities + Assets + Activities**

This means, one need to focus on following to improve his or her livelihood or livelihood of people in general.

- A.Capabilities
- B.Assets
- C.Activities

Capability of a person means 'capping' or powering the abilities of a person. Abilities includes physical abilities, mental abilities and skills. A person becomes capable of doing something only when he or she is able and there is proper environment or support e.g. Access to finance, access to market, road connectivity etc. Fig- 1 indicates various components of capabilities.



Fig 1.1.1 Understanding Capabilities (Note: Skill is an integral part of capabilities)

Things which are 'Assets' have value for the owner because they can be converted into cash.

Can you name the key assets of a livestock farmer?

.....

A thing that a person or group does for a particular purpose is called 'Activity'



Can you name some activities shown in this postal stamp?

.....  
.....

*Refreshing our learning on abilities....*

Check following pictures and name different abilities:



.....



.....



What is the skill of the women in above picture?

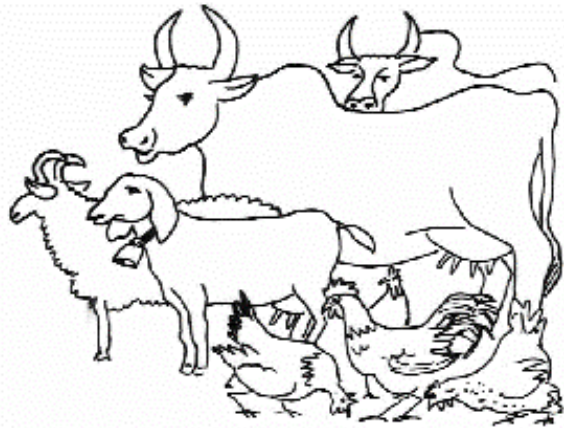
.....

Can you name her asset as shown in this picture?

.....

Can you now link Skill development to livelihood?

## 1.1.2 The Livestock and livelihood



*Fig 1.1.2 The Livestock and livelihood*

Livestock can be defined as useful animals kept on a farm. Livestock are raised for profit or conservation of rare breeds. Livestock gives us food (e.g. milk, meat), fiber (e.g. wool), leather, fertilizer (e.g. manure) and/or labor (e.g. Animal Traction).

The term poultry is used to specifically describe domesticated birds reared for egg, meat, feathers and sometime as pet also. Species of poultry includes: Chicken, Quails, Turkey, domesticated ducks, domestic geese, guinea fowl and pigeons etc.

Livestock in India includes: Cattle, Buffalo, Sheep, Goat, Pig, Horses & Ponies, Mules, Donkeys, Camels, Rabbits, Mithun and Yak.



*Fig 1.1.2 A herd of sheep near Indo-Nepal border (Photo credit: vethelplineindia.co.in)*



Livestock are important part of Indian culture and mythology.

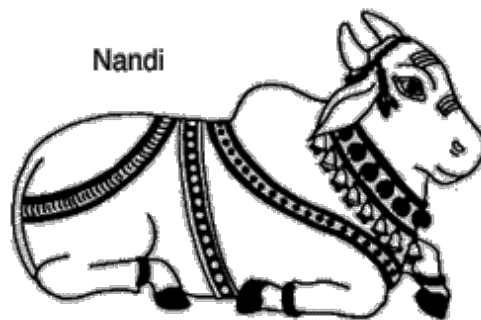


Fig 1.1.2 Nandi - the gatekeeper of Shiva and Parvati in Hindu mythology

Livestock and poultry provides livelihood to two-third of rural community in India.



Fig 1.1.2 Mrs Kumariamamma of Kerala with her backyard poultry (photo credit: kvkcard.org)

#### Do you know?

- ✓ India stands First in the total buffalo population in the world and second in the population of cattle and goats.
- ✓ India is the second largest egg producer and third largest broiler chicken producer in the world
- ✓ India has 30 recognized breeds of cattle, 15 of buffaloes, 42 of sheep, 20 of goats, 8 of horses and 18 of poultry.
- ✓ As high as 70% of livestock in India, is owned by 67% of small, marginal and landless farmers. Sixty percent of labor of livestock rearing in India is provided by women and more than 90% of work related to care of animals is rendered by womenfolk and children of the family.



Fig 1.1.2 Cow dung cake used as fuel for cooking in Indian villages (Source: Flickr Credit: Andrew Turner)



Fig 1.1.2 Land leveling in rice fields using draught animals (Photo credit: CRRl)

NB: You can refer Internet to learn more on contribution of livestock and poultry to Indian economy.

*Class work:*

List products and by-products obtained from livestock and poultry.

## Exercise



1. List the various livestock as Big ruminants, Small ruminants, Monogastrics and Camelids

Answer: -----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

2. Identify the difference between ruminants and monogastric livestock

Answer: -----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

## Tips

1. The learning from this unit can be interesting if you look for answers of following questions:
  - How knowledge of the village you are serving can help you support the livelihood of people? *(Refer technical definition of livelihood and types of resources in village)*
  - How can knowledge of crop calendar and village festivities help your work as animal health worker? *(Refer role of Animal Health Worker)*
  - Why is skill development important to support livelihood? *(Refer components of capabilities and live hood equation)*
  - *What should I do to support the livelihood of a livestock farmer? (Refer livelihood equation)*
2. Always try to attend and participate in meetings of various village level institutions. Your opinion can help village leaders to plan and implement project for livestock sector improvement.
3. Always access the 'Need' and 'Resources' within a village or service areas before suggesting any program for livestock farmers.

## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---