

Revised Application Documentation: Version 4 /25 May, 2015

QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

Name and address of submitting body:

Agriculture Skill Council of India

304-305 Bestech Chambers,
Block B, Sushant Lok 1,
Gurgaon-122002
P: 0124-4288322

Name and contact details of individual dealing with the submission

Name: Ms Priyanka Prakash

Position in the organisation: Manager

Address if different from above

Tel number(s): 0124-4288322

E-mail address: priyanka@asci-india.com

List of documents submitted in support of the Qualifications File

1. Qualifications Pack
2. Industry Engagement Certificate
3. Occupational Map

3. QUALIFICATION FILE SUMMARY

Qualification Title	Bee-keeper (AGR/Q5301)		
Body/bodies which will assess candidates	Agriculture Skill Council of India (ASCI)		
Body/bodies which will award the certificate for the qualification.	Agriculture Skill Council of India (ASCI)		
Body which will accredit providers to offer the qualification.	Agriculture Skill Council of India (ASCI)		
Occupation(s) to which the qualification gives access	Beekeeping		
Proposed level of the qualification in the NSQF.	4		
Anticipated volume of training/learning required to complete the qualification.	150 Hours		
Entry requirements / recommendations.	No formal Education		
Progression from the qualification.	Honey Technician, Organic Honey Supplier		
Planned arrangements for RPL.	RPL assessment will be as per normal ASCI assessment process.		
Formal structure of the qualification			
Title of unit or other component (include any identification code used)	Mandatory/Optional	Estimated size (learning hours)	Level
1. AGR/N5301 Understand bee biology and behavior	Mandatory	20	4
2. AGR/N5302 Handle beekeeping systems and beekeeping equipments	Mandatory	30	
3. AGR/N5303 Beehive management	Mandatory	35	
4. AGR/N5304 Manage insects, diseases and nuisances in beehive	Mandatory	30	
5. AGR/N5305 Harvest, process and market the produce	Mandatory	35	

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack.

Give details of the document here:

Qualification of Bee Keeper attached as Annexure 1

SECTION 1

ASSESSMENT

Name of assessment body:

If there will be more than one assessment body for this qualification, give details.

ASCI affiliated assessment bodies.

1. Aspiring Minds Pvt Ltd
2. Anant Learning & Development Pvt Ltd
3. Assess People Services India Pvt Ltd
4. Trendsetters Skill Assessors Pvt Ltd

More Assessment Agencies are being empanelled to cover wider geographical area

Will the assessment body be responsible for RPL assessment?

Yes

Give details of how RPL assessment for the qualification will be carried out and quality assured.

RPL will be based on the same approved Qualification Pack and Assessment Criteria mentioned in the Qualification Pack and will be carried out as per normal ASCI assessment process.

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:

A robust technology enabled assessment methodology has been designed keeping in mind the geographical/Physical constraints and target segment which assess a trainee's knowledge and skill set through three methods:

- a. An offline Tablet based test through the use of Multiple Choice Text and Picture based questions in vernacular languages
- b. Actual demonstration on the field
- c. Viva

ASCI's assessment strategy:

- Question sets are developed as per the weightage of each NOS of the Qualification Pack.
- Assessment criteria for each Qualification Pack developed, in which each Performance criteria (PC) assigned marks based on NOS
- Question Bank is developed to assess the theoretical and practical knowledge. To ensure the quality, each trainees get different set of question
- Empanelment of subject matter expert as assessor primarily from the Industry to assess trainee specifically on practical skills as per Industry demands
- Assessments are preferably conducted on tablets or pen or papers in regional languages according to the requirement.
- Questions are uploaded in the tablets only on the day of assessment
- It is ensured that TP/trainer are not present during assessment

Please attach any documents giving further information about assessment and/or RPL.

Give details of the document(s) here:

Assessment criteria is available at the end of the Qualification Pack (attachment sl.no.1)

ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as listed in the entry on the structure of the qualification on page 1.

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role: Beekeeper

Qualification Pack: AGR/Q5301

Sector Skill Council: Agriculture

Guidelines for Assessment:

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create *unique question papers for theory part for each candidate at each examination/training centre* (as per assessment criteria below)
4. Individual assessment agencies will create *unique evaluations for skill practical for every student at each examination/training centre* based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 60% in aggregate and 40% in each NOS
6. The marks are allocated PC wise; however, every NOS will carry a weightage in the total marks allocated to the specific QP.

Assessable Outcome	Assessment Criteria	Total Marks	Out Of	Marks Allocation	
				Theory	Skills Practical
1. AGR/N4801 Understand bee biology and behaviour	PC1. identify different species of bees	45	3	1	2
	PC2. identify sub-species of bees		3	1	2
	PC3. identify different races of bees		3	0	3

PC4. ascertain life span of different bees	3	3	0
PC5. ascertain different roles played by different types of honey bee	3	3	0
PC6. ascertain different development stages of life cycle of the different types of bees	3	1	2
PC7. identify time needed to complete each stage	3	0	3
PC8. identify raw produce generated by bees during life cycle	3	0	3
PC9. identify different communication methods such as drumming feet, flapping wings etc.	3	0	3
PC10. ascertain communication style to locate food source	3	3	0
PC11. ascertain communication style to locate new home to which bees intend to swarm.	3	3	0
PC12. ascertain mixing of the male and female parts of flower	3	3	0

	PC13. identify reproduction of flowering plants		3	0	3
	PC14. list down bee forage plants		3	2	1
	PC15. construct a flowering calendar for their local areas		3	3	0
	Total		45	23	22
2. AGR/N4802 Handle beekeeping systems and beekeeping equipments	PC1. identify different bee-keeping systems ranging from the local/traditional systems to the modern systems	30	4	0	4
	PC2. ascertain importance of economic aspects of the different bee-keeping systems		5	3	2
	PC3. select the most appropriate bee-keeping system (best hive type) for their areas based on cost benefit analysis		8	3	5
	PC4. identify and use of modern bee-keeping tools		4	0	4
	PC5. ascertain the working of the different bee-keeping tools		4	4	0

	PC6. ascertain importance of economic aspects of the different bee-keeping tools		5	5	0
	Total		30	15	15
3. AGR/N4803 Beehive Management	PC1. select appropriate location for beehives that consist of diverse vegetation that provides plenty of pollen and nectar	90	2	1	1
	PC2. know and fix appropriate radius of apiary location from food sources		2	0	2
	PC3. ensure sourcing of good water in the immediate area since bees need as much water as pollen and nectar		1	0	1
	PC4. ensure hanging of hives using strong greased galvanized wires to protect the bees		1	0	1
	PC5. ensure hanging of hives in or under well shaded trees		1	0	1
	PC6. suspend hives from wires so that predators cannot push them over		2	2	0
	PC7. remember hanging of hives in such a way that allows ease of harvesting		1	0	1

PC8. use trees and solid poles to hang the hive	1	1	0
PC9. hives should be hung at waist height above the ground	1	0	1
PC10. keep the hives clean and pest free	4	0	4
PC11. ensure placing of hives on sturdy stands	1	0	1
PC12. place hives in a way so that they can be approached from behind	1	1	0
PC13. place hives on stands makes them accessible and easy to harvest and manage	1	1	0
PC14. reduce drifting and disease transmission	2	1	1
PC15. remove small stones or debris in the apiary	1	1	0
PC16. attract bees to the hives	3	0	3

PC17. feeding the colonies during dearth period	4	4	0
PC18. preservation of comb during dearth period	4	4	0
PC19. Queen rearing	6	4	2
PC20. divide the colonies in order to populate a new hive	4	4	0
PC21. uniting of smaller colonies to enlarge a colony	4	4	0
PC22. improve their yield of honey or to survive the dearth	4	4	0
PC23. populate the hive includes swarming and transferring of bees	4	4	0
PC24. ascertain use of tools used in dividing, uniting and populating the bees	3	0	3
PC25. identify the climatic conditions before proceeding to the beehive for inspection	1	0	1

PC26. ascertain use of various equipments used for inspection like smokers, bee suits, gloves	3	0	3
PC27. perform colony inspection from outside to get idea of the colony status without opening the hive	2	2	0
PC28. ensure incoming and outgoing bees and pollen carrying foragers at the hive entrance	1	0	1
PC29. make sure that colony is strong and healthy	1	0	1
PC30. check colony is diseased, abnormal and poisoned	3	1	2
PC31. gather necessary tools before starting inside colony inspection	2	0	2
PC32. use necessary tools to perform inside colony inspection	2	2	0
PC33. perform colony inspection from inside to confirm the colony status, strengths and any abnormalities	3	2	1
PC34. make necessary observation regarding condition of the bees, food stores, presence of pests and disease, symptoms of swarming and absconding	3	0	3

	PC35. check need to provide more frames with comb foundation		2	2	0
	PC36. ensure cleanliness and hygiene		3	0	3
	PC37. remove unnecessary, deformed, or additional combs built by the bees		2	0	2
	PC38. records should be kept to know what was done last time and what to do next time		2	0	2
	PC39. Keep records what equipment to use and when to use effectively and efficiently		2	0	2
	Total		90	45	45
4. AGR/N4804 Manage pests, diseases in apiary	PC1. identify common insects pests stored in combs like wax moth, Varro mite, ant and termites	60	8	6	2
	PC2. take preventive steps/methods to overcome insects		10	4	6
	PC3. use required tools, equipments and other materials		4	4	0

	PC4. identify common diseases of bee like European foul brood, American foul brood, sac brood		8	2	6
	PC5. take preventive measures and methods to overcome bee diseases		10	5	5
	PC6. use required tools, equipments and other materials		4	4	0
	PC7. identify nuisances in bee-keeping like disturbance from domestic animals, bush fires, chemical poisoning, honey badger and vandalism		6	0	6
	PC8. preventive practices and methods to overcome bee diseases		6	4	2
	PC9. use required tools, equipments and other materials		4	1	3
	Total		60	30	30
5. AGR/N4805 Harvest, produce and market the produce	PC1. ascertain right time to harvest the honey and other raw products	75	7	4	3
	PC2. identify the right equipments used in harvesting like smoker, hive tool, nucleus top bar hive		8	6	2

PC3. report any accidents, incidents or problems without delay to an appropriate person	2	0	2
PC4. take necessary actions to reduce further danger	4	4	0
PC5. perform grading of raw products to ensure good quality and shelf-life of the products	10	5	5
PC6. follow procedures, practices and methods of grading of raw produce	4	0	4
PC7. perform extraction of honey adopting suitable methods of extraction	9	5	4
PC8. follow procedures, practices and methods of extraction of raw produce	4	0	4
PC9. procure required inputs for extraction of raw product	1	0	1
PC10. ascertain proper storage and packaging of honey	10	5	5
PC11. identify the honey and bee related by-products traders	8	4	4

	PC12. ascertain good supply chain		8	4	4
			75	37	38
	TOTAL	300	300	150	150

SECTION 2

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

While collecting data from the companies for the occupational map, we also took feedback from industry, training institutions & farmer groups which was collected with respect to roles for which qualification packs development, was to be prioritized. This was largely based on volume of people required, quantitative and qualitative shortfall which the Industry feels they face. Governing council of ASCI and Occupational Standards Committee which comprises of experts & senior leaders gave final approval and endorsement for the same.

What is the estimated uptake of this qualification and what is the basis of this estimate?

It is difficult to estimate uptake of this qualification at this stage as the sector not only is highly unorganized but also no in-depth skill-gap study has been done. The QP has been developed taking feedback from industry for demand though again sample size may not lend to accurate figures. Working closely with NSDA would indicate precise requirements.

What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?

NSDC list of Approved and Under-Development QPs was checked prior to commissioning the work and also our occupational map/QPs are put on ASCI & NSDC websites.

What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?

- Any institution / individual is welcome to send feedback, which is recorded and considered

During next review cycle.

- Communication will be sent for any feedback to all the main stakeholders/users one month prior to the review of the qualifications pack.
- A formal review is scheduled in one year time

Please attach any documents giving further information about any of the topics above.
Give details of the document(s) here:

SECTION 3

SUMMARY EVIDENCE OF LEVEL

Level of qualification: 4

Summary of Direct Evidence (from learning outcomes):

A Beekeeper does routine & predictable work such as managing the operations and functions required for Beehive and marketing the produce. He works independently and is responsible for own work & learning. He is the decision-maker in hiring workers if required; and in determining amounts and kinds of supplies to be purchased and taking preventive & control measures for any nuisances in Beehive. He/She exhibits basic understanding of social, political & natural environment and communicate clearly with the workers and market agents.

Though the Beekeeper may be involved in supervision of the hired workers but these are casual hiring and do not involve structured supervision and most of the activities are independent activity.

Beekeeper AGR/Q5301					
Process required	Professional Knowledge	Professional Skills	Core Skills	Responsibility	Level
Individual at this job role is requires to manage beehive for that purpose s/he also manage insects, diseases and nuisances in bee hive. Finally s/he requires to do all the familiar and predictable works like harvest, process and market the produce.	The individual need factual knowledge of handling beekeeping system, beekeeping equipments, harvesting and processing requirements etc.	The individual manage the operations and functions of farms mostly routine & repetitive, such as handling beekeeping equipments, and other systems, colony management, record keeping of all the activities etc. in order to achieve qualitative final produce.	In order to correctly perform the tasks related to handling, processing, pest and disease management, etc. and to ensure health and safety, individual requires communication skills with required clarity, and basic understanding of social, political and natural environment.	The individual is responsible for own work such as installation of beehive, colony management, colony inspection, processing and selling the produce (level 4). S/he is not supervised (as in case of level 3) and also not have responsibility of others' (as in level 5).	4
Level : 4	Level : 4	Level : 4	Level : 4	Level : 4	

Summary of other evidence (if used):

SECTION 4

EVIDENCE OF RECOGNITION OR PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

Career path in agri sector is generally in terms of activities done & ownership of responsibility because they are primarily wage & self employment/entrepreneurship roles.

However, there are occupations in the organized segment (Agri Industries) in which career pathway has been identified as illustrated in the Occupational Map attached as Annexure sl.no. 3

Please attach any documents giving further information about any of the topics above.
Give details of the document(s) here: