

Agro Processing (CITS)

**CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE**

Directorate General of Training (DGT)  
Government of India, Ministry of Skill Development and Entrepreneurship,  
1st and 2nd Floor, CIRTES Building  
Next to Pusa ITI, Pusa Campus  
New Delhi – 110012.

**Name and address of submitting body:**

Directorate General of Training (DGT)  
Government of India, Ministry of Skill Development and Entrepreneurship,  
1st and 2nd Floor, CIRTES Building  
Next to Pusa ITI, Pusa Campus  
New Delhi – 110012.

**Name and contact details of individual dealing with the submission**

Name: Shri Deepankar Mallick

Position in the organisation: Deputy Director General (C & P)

Address if different from above:

Tel number(s): 011-25847035

E-mail address: deepankar.mallick60@nic.in

**List of documents submitted in support of the Qualifications File**

1. Competency-based curriculum with following details:

**Model Curriculum to be added which will include the following:**

- **Indicative list of tools/equipment to conduct the training:** Enclosed with curriculum
- **Trainers qualification:** Indicated in the curriculum
- **Lesson Plan:** All DGT curricula are designed indicating specific practical to be carried out during training along with details of trade theory. Based on this

the concerned instructor prepares the Lesson Plan and Demonstration Plan with support of Reference Books and IMPs developed by DGT.

- **Distribution of training duration into theory/practical/OJT component:**  
Indicated in the curriculum.

2. Curriculum for Core Skills (Training Methodology and Soft Skills).

NSQC Approved

**SUMMARY**

<b>1</b>	<b>Qualification Title</b>	'Agro Processing(CITS)'
<b>2</b>	<b>Qualification Code, if any</b>	DGT/4039
<b>3</b>	<b>NCO code and occupation</b>	2356.0100-Manual Training Teacher/Craft Instructor 7514.9900 - Fruits, Vegetables and Related Preservers, Others 6111.0100 - Cultivator General 6111.0101 - Paddy Farmer 6111.0201 - Wheat Cultivator 6111.0301 - Maize Cultivator 6111.0401 - Pulses Cultivator 8160.0700 – Miller, Food Grains 8160.0800 - Husker, Machine (Food Grains) 8160.1000 – Flour Mill Operator
<b>4</b>	<b>Nature and purpose of the qualification (Please specify whether qualification is short term or long term)</b>	Prepare competent Instructors to impart training in relevant trade at various ITIs/ NSTI/ MSTI BTC/ BTPs and other technical institutions.  It is a long term qualification.
<b>5</b>	<b>Body/bodies which will award the qualification</b>	<b>Directorate General of Training (DGT)</b>
<b>6</b>	<b>Body which will accredit providers to offer courses leading to the qualification</b>	<b>Directorate General of Training (DGT)</b> accredits the Training providers.
<b>7</b>	<b>Whether accreditation/affiliation norms are already in place or not, if applicable (if yes, attach a copy)</b>	Yes. The accreditation/ affiliation norms are available in DGT web portal.
<b>8</b>	<b>Occupation(s) to which the qualification gives access</b>	<ul style="list-style-type: none"> <li>• Manual Training Teacher/Craft Instructor</li> <li>• Fruits, Vegetables and Related Preservers, Others</li> <li>• Cultivator General</li> <li>• Paddy Farmer</li> <li>• Wheat Cultivator</li> <li>• Maize Cultivator</li> <li>• Pulses Cultivator</li> <li>• Miller, Food Grains</li> <li>• Husker, Machine (Food Grains)</li> <li>• Flour Mill Operator</li> </ul>

9	<b>Job description of the occupation</b>	The individual will be able to impart theoretical instructions, demonstrate practical skills, evaluate and grade trainees of <b>Agro Processing and related</b> trade in industrial workshops, ITIs/Vocational Training Institutes etc.		
10	<b>Licensing requirements</b>	NOT REQUIRED		
11	<b>Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided)</b>	NOT APPLICABLE		
12	<b>Level of the qualification in the NSQF</b>	Level 6		
13	<b>Anticipated volume of training/learning required to complete the qualification</b>	<b>Sl. No.</b>	<b>Course Element</b>	<b>Notional Training Hours</b>
		1	Trade Theory	640
		2	Trade Practical	240
		3	Soft SkillsTheory	100
		4	Soft SkillsPractical	100
		5	TM Theory	200
		6	T M Practical	320
		<b>Total</b>		<b>1600</b>
14	<b>Indicative list of training tools required to deliver this qualification</b>	As per “Infrastructure” heading at Sl. No. 8 of curriculum.		
15	<b>Entry requirements and/or recommendations and minimum age</b>	<p>Degree in Food Technology/ Food Engineering/ Food processing from recognized Board / University.</p> <p style="text-align: center;">OR</p> <p>Diploma (Minimum 2 Years) in Food Technology/Food Engineering /Food processing from recognized Board / University.</p> <p style="text-align: center;">OR</p> <p>NTC / NAC in ‘Agro Processing’ or related trades.</p> <p>Minimum age 18 years as on first day of academic session.</p>		
16	<b>Progression from the</b>	An Individual can proceed for:		

Sl. No.	Title of component and identification code/NOSs/Specific Learning outcomes	Estimated size (learning hours)		Level
		Prof. Skill	Prof. Knowledge	
	<b>qualification (Please show Professional and academic progression)</b>	<b><u>Professional</u></b> <ul style="list-style-type: none"> <li>Instructor in a vocational training Institute/ technical Institution</li> <li>Supervisor in Industries</li> </ul>		<b><u>Academic</u></b> <ul style="list-style-type: none"> <li>Diploma</li> <li>Advance Diploma (Vocational)</li> <li>Degree</li> <li>PG</li> </ul>
17	<b>Arrangements for the Recognition of Prior learning (RPL)</b>	Instructors of relevant trade with 3yrs experience may appear for final examination after completion of e-learning in POT.		
18	<b>International comparability where known (research evidence to be provided)</b>	NOT KNOWN		
19	<b>Date of planned review of the qualification.</b>	5 Yrs from the date of approval		
20	<b>Formal structure of the qualification</b>			
	<b>Mandatory components</b>			
<b>Trade Technology (TT)</b>				
(i)	Demonstrate operation, handling and maintenance of agro processing machinery.	48	18	5
(ii)	Plan for safe production processes of foods and identification of wastes in Agro industry along with its proper utilization.	48	18	6
(iii)	Test and evaluate storing and packaging materials.	64	24	6
(iv)	Plan for various production processes of different wheat products and detection of extraneous matter in those along with determination of several physical parameters.	80	30	6
(v)	Demonstrate milling operations in production of dal (pulse) along with detection of khesari dal and metanil yellow.	80	30	6
(vi)	Plan and execute production of cereal based products and by-products and evaluate their	80	30	6

	quality parameters.			
(vii)	Demonstrate procurement & processing of Spice powders and identification of various quality parameters of the same.	80	30	6
(viii)	Plan and execute extraction, refining and purification of oil and determination of its quality parameters.	96	36	6
(ix)	Demonstrate various processing of paddy for rice and evaluate its quality.	64	24	6
<b>Soft Skills</b>				
(i)	Exhibit attitude & effective communication skills with logical reasoning ability to maximize efficiency at work.	25	25	6
(ii)	Demonstrate reasonable quantitative aptitude and interpret data in the field of work while performing practical tasks.	25	25	6
(iii)	Describe method of energy conservation and day-to-day contribution to work for optimum utilization of resources.	25	25	6
(iv)	Demonstrate English language fluency while carrying out official work.	25	25	6
<b>Training Methodology (TM)</b>				
(i)	Plan & prepare the learners for the class using basics of educational psychology & motivational techniques.	24	15	5
(ii)	Analyze the syllabus of the Course.	16	10	6
(iii)	Plan & prepare the training session using various methods viz. 4 step method, question & questioning technique etc.	24	15	6
(iv)	Communicate effectively with the trainees both verbally and nonverbally.	24	15	6
(v)	Use Instructional Technology & facilitate the training program.	16	10	6
(vi)	Design written instructional materials and implement for imparting training.	24	15	6
(vii)	Assess, evaluate and certify the tests.	24	15	6
(viii)	Organize workshop and classroom learning observing instructional methods.	24	15	6
(ix)	Counsel & mentor the trainees by identifying their Strength & Weaknesses.	24	15	6

(x)	Develop Entrepreneurship skills.	24	15	6
(xi)	Apply ICT & Internet in training (computer based training) and various types of Distance learning programmes.	24	15	6
(xii)	Conduct competency-based training using LO/QP/ NOS and NSQF guidelines.	24	15	6
(xiii)	Apply Adult Learning Principles.	24	15	6
(xiv)	Develop and implement continuous professional development plan.	24	15	6
<b>Total</b>		<b>1600</b>		

**SECTION 1**  
**ASSESSMENT**

<b>21</b>	<b>Body/Bodies which will carry out assessment:</b> Controller of Examinations, DGT
<b>22</b>	<b>How will RPL assessment be managed and who will carry it out?</b> Instructors of relevant trade with 3 yrs experience may appear for final examination after completion of e-learning in POT and carried out by respective NSTIs under DGT.

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

**(1) Assessment process:**

Assessment and Certification of all the trainees will be carried out as per Directorate General of Training (DGT) norms for the trade theory including practical portion conducted in NSTI/IToT workshop. The assessment for the qualification is carried out by conducting formative assessments and summative assessment (end-of-year examination). The internal assessment for each learning outcome is carried out by the concerned trainer for evaluating the knowledge and skill acquired by trainees and the behavioural transformation of the trainees. This internal assessment is primarily carried out by collecting evidence of competence gained by the trainees by evaluating them at work based on assessment criteria, asking questions and initiating formative discussions to assess understanding and by evaluating records and reports, and internal assessment marks are awarded to them. Theory and practical examinations are conducted in Trade Technology, Soft Skills and Training Methodology. The question papers for the theory Examinations contain objective type questions. The practical examination at the end of training is conducted at NSTI / IToTs and the marks are uploaded in the portal accordingly.

The marking pattern and distribution of marks for the qualification are as under:

Sl. No	Subject	Marks	Internal Assessment	Full Marks	Pass Marks	
					Exa	Internal Assessment
.						



						<b>m</b>	<b>nt</b>
1.	Trade Technology	Trade Theory	100	40	140	40	24
		Trade Practical	200	60	260	120	36
2.	Soft Skills	Practical	50	25	75	30	15
		Theory	50	25	75	20	15
3.	Training Methodology	TM Practical	200	30	230	120	18
		TM Theory	100	20	120	40	12
Total Marks			<b>700</b>	<b>200</b>	<b>900</b>	<b>370</b>	<b>120</b>

**(2) Minimum pass marks:**

The minimum pass percent for Trade Practical, TM Practical, Soft Skill Practical Examinations and Formative assessment is 60% & for all other subjects is 40%. There will be no Grace marks.

**(3) Testing and certifications for the course:**

Controller of examinations, DGT carries out the assessment and issues National Craft Instructor Certificates (NCIC) following the norms and guidelines issued by the Directorate from time to time.

**Overall assessment strategy:**

Assessment of the qualification evaluates trainees to show that they can integrate and impart knowledge, skills and values for carrying out relevant tasks as per the defined learning outcomes and assessment criteria. The trainees may choose the preferred language for assessment. The underlying principle of assessment is fairness and transparency. While assessing the trainee, assessor is directed to assess as per the defined assessment criteria against the learning outcomes. The evidence of the competence acquired by the trainees can be obtained by conducting theory and practical examinations, observing the trainees at work, asking questions and initiating formative discussions to assess understanding and evaluating records and reports. The ultimate objective of the assessment is to assess the candidates as per the defined assessment criteria for the learning outcomes.

	<p><b>Specific Arrangements for assessment:</b></p> <ul style="list-style-type: none"> <li>• Assessment is outcome-based.</li> <li>• There are formative and summative assessments in Theory and Practical.</li> <li>• Assessment is carried out in Trade Technology, Soft Skills &amp; Training Methodology.</li> <li>• While Trade Theory and Trade Practical are used for assessing Trade-related jobs, Soft Skills is used to test trainee's soft skills and communication skills and Training Methodology is used to test teaching skills.</li> <li>• In addition to demonstration of theory and practical knowledge, overall personality of the trainees is also assessed.</li> </ul> <p><b>Quality assurance activities:</b></p> <ul style="list-style-type: none"> <li>• Question papers are set by external paper setters/ software generated.</li> <li>• Evaluation of Theory Examinations in Trade, Soft Skills and Training Methodology is done by third-party agency.</li> <li>• Trade Practical is examined by External Examiner.</li> </ul>
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## 24. ASSESSMENT EVIDENCE

**Title of Component:** Agro Processing- CITS

<b>Means of assessment</b>			
Assessment will be evidence based comprising the following for each Learning Outcome:			
Serial No.	Terminal Competency		Maximum Weightage (%)
1	Safety	Consciousness & Workplace	15

	Hygiene	
2	Attendance/ Punctuality	5
3	Planning of assigned task	20
4	Execution of planned work	25
5	Quality of Performance	20
6	VIVA	15
	Total Maximum Weightage (%)	100
<b>Pass/Fail</b>		
The minimum pass percentage is 60% marks for formative assessment.		

<b>ASSESSMENT CRITERIA WITH LEARNING OUTCOME</b>	
<b>LEARNING OUTCOME</b>	<b>ASSESSMENT CRITERIA</b>
<b>TRADE TECHNOLOGY</b>	
1. Demonstrate operation, handling and maintenance of agro processing machinery.	Identify basic machineries used in agro processing industries.
	Operate Hammer mill, Groundnut decorticator hand operated, Mini dal mill etc.

	Handle Mini rice mill, Mini oil expeller, Grain cleaner, Mini grain mill, Wheat flour mill etc.
	Demonstrate usage of Micro pulveriser and Destoner, Packaging machine (Heat sealing machine), Weighing Balance, Extruder etc.
	Explain working principles of the machineries.
	Check and rectify faults in machineries.
	Demonstrate maintenance of all equipment.
2. Plan for safe production processes of foods and identification of wastes in Agro industry along with its proper utilization.	Differentiate application of HACCP and GMP in agro processing industry.
	List out international food standards.
	Explain international food laws.
	Demonstrate the roles of food regulatory agencies.
	List out the wastes coming out from agro industries.
	Illustrate the utilization process for the wastes.
	Demonstrate importance of personal Hygiene, Cleaning & Sanitary standards of Agro processing industry.
3. Test and evaluate storing and packaging materials.	Explain different storage structure for grains.
	List out the packaging materials used in agro industries
	Consider the factors before selection of proper packaging material.
	List the parameters to be checked during packaging of foods.
	Demonstrate the testing method of packaging materials.
	Check quality standards for packed processed products.
4. Plan for various production processes of different wheat products and detection of extraneous matter in those along with determination of several physical parameters.	Conduct cleaning, grading and other pre-processing activities.
	Select and ascertain tools and equipment for production of whole wheat, corn flour, Suji, atta/maida and dalia.
	Demonstrate preparation and quality evaluation of popped corn.
	Checkmoisture content of flour using hot air oven method and IR Moisture meter.
	Determine ash content of flour.
	Ascertain water absorption power of flour.
	Determine thousand kernel weight of grains.
	Check impurities present in the grains.
	Determine hectolitre weight of grains.
	Ascertain vitreousness / mealiness of wheat grain.

	Determine pelshenke value of wheat flour.
	Ascertain maltose figure of wheat flour.
	Estimate free fatty acid of wheat flour.
	Determine wheat grain hardness using texture analyzer
5. Demonstrate milling operations in production of dal (pulse) along with detection of khesari dal and metanil yellow.	List out the pre-treatment in dal milling like cleaning, grading, soaking, and drying.
	Demonstrate milling pulses for production of dal, e.g. pigeon pea, green gram, Bengal gram.
	Detect khesari dal in pulses.
	Show Packaging and uses of wastes from dal mill.
	Demonstrate effect of moisture content on the dehusking efficiency and breakage of pulses during milling.
	Show effect of alkali treatment on the milling characteristic of pulses.
	Detect metanil yellow in pulses.
6. Plan and execute production of cereal based products and by-products and evaluate their quality parameters.	Plan and execute production of cereal based products like macaroni, noodles, spaghetti and vermicelli.
	Estimate moisture content, protein content in cereals flour.
	Ascertain ash content and fat content in cereals flour.
	Determine different quality parameters in cereals product.
7. Demonstrate procurement & processing of Spice powders and identification of various quality parameters of the same.	Plan & execute procurement and Pre- processing of spices, cleaning, grading, de-stoning, milling, blending and formulating and preparing of spices and spice mixes.
	Demonstrate the working of machinery for spice grinding.
	Show production of spice powders from, coriander, black pepper, red chilly, turmeric etc.
	Check extraneous matter in ground spices.
	Detect coal tar dies in spices containing fast natural colour like (Turmeric).
	Find papaya seeds in black pepper.
	Detect brick powder, sand dirt in chillies.
	Plan & execute the process of essential oil extraction and oleoresin of different spices.
8. Plan and execute extraction, refining and purification of oil and	Explain the working of oil expellers.
	Demonstrate effect of pre-treatment on the oil recovery from different oil seeds.

determination of its quality parameters.	Show oil expelling from different oil seeds e.g. mustard, groundnut and rapeseed, sunflower.
	Plan & perform filtration and packaging of oil.
	Detect oil soluble coal tar dyes in oil.
	Estimate protein content in the deoiled meal.
	Determine iodine value, RM value, P- value, saponification value of oils.
	Conduct qualitative checking of various adulterants in oils
	Demonstrate solvent extraction of selected oilseeds.
	Conduct preparation and sensory evaluation of peanut butter.
9. Demonstrate various processing of paddy for rice and evaluate its quality.	Execute processing of paddy for rice.
	Show packaging of rice: Weighing, bagging, Sealing machines.
	Demonstrate grading of rice grain on the basis of shape and size.
	Determine milling yield of paddy.
	Show preparation and quality evaluation of beaten rice.
	Illustrate different methods of parboiling and their effects on milling of rice.
<b>SOFT SKILLS</b>	
1. Exhibit attitude & effective communication skills with logical reasoning ability to maximize efficiency at work.	Recognize correct sources of information, organize and interpret accordingly for decision making.
	Analyze & use documents, regulations and occupationally related provisions.
	Conduct appropriate and target oriented discussions with higher authority and within the team.
	Applications will be assessed during execution of assessable outcome and will also be tested during theory and practical examination.
2. Demonstrate reasonable quantitative aptitude and interpret data in the field of work while performing practical tasks.	Check & record data to analyze the given trade related Practical job.
	Ensure quality for given parameters as per the job sheet by use of appropriate tools.
	Review list of appropriate materials by interpreting detail job sheet and determine required quantities of such materials for given piece of work.

	Applications will be assessed during execution of assessable outcome and will also be tested during theory and practical examination.
3. Describe method of energy conservation and day-to-day contribution to work for optimum utilization of resources.	<p>Explain environment, its eco-system and different types of energy.</p> <p>Describe the impact of given human activities &amp; measures of public awareness.</p> <p>Demonstrate measures to conserve energy for betterment of environment eco-system.</p> <p>Demonstrate economic use of raw material for given piece of work.</p>
4. Demonstrate English language fluency while carrying out official work.	<p>Analyze &amp; ensure correct usage of simple words and construction of sentences grammatically.</p> <p>Communicate messages or information in English while selection of resume.</p> <p>Read, write &amp; speak in English while handling given official work.</p>
<b>TRAINING METHODOLOGY</b>	
1. Plan & prepare the learners for the class using basics of educational psychology & motivational techniques.	<p>Implement techniques based on psychological parameters like Personality, Aptitude, Skills, values and Potentials.</p> <p>Use different experiments on theories of learning by the different psychologists and their effect in learning situation and relation with Laws of learning.</p> <p>Demonstrate on Modality Learning (Auditory, Visual and Kinesthetic modality).</p> <p>Set Questionnaire on personality development for assessing the psychological attributes.</p> <p>Motivate trainees for the training session.</p>
2. Analyse the syllabus of the Course.	<p>Select salient points on designing a training curriculum.</p> <p>Analyse a sample syllabus.</p> <p>Discuss Elements of skills, Outlines of a syllabus.</p> <p>Make project work on making break up of syllabus and list of topics - Video show/PPT of ADDIE Model.</p> <p>Design schedule of instructions.</p> <p>Construct a sample course using principles of teaching.</p>
3. Plan & prepare the training session using	Set questions on different levels of learning in psychomotor domain according to Bloom Taxonomy.



various methods viz. 4 step method, question & questioning technique etc.	Demonstrate the steps of imparting skills.
	Prepare lesson plan and demonstration plan using 4 Step methods.
	Use questioning techniques.
4. Communicate effectively with the trainees both verbally and nonverbally.	Identify the process of communication.
	Use verbal & non-verbal communication to convey messages, pre-listening activity and respond to them.
	Communicate effectively with the trainees in training session.
5. Use Instructional Technology & facilitate the training program.	Use various instructional Technologies viz. OHP, Digital Camera, LCD projector, smart board etc.
	Plan and design charts, transparencies, slides, posters, mock-ups etc.
	Conduct micro teaching sessions.
6. Design written instructional materials and implement for imparting training.	Plan & prepare different WIM viz. Operation sheet, Job sheet, Information Sheet, Assignment Sheet, Experiment Sheet, Experiment Sheet, Final Job Check Sheet etc.
	Maintain various records viz. Daily Dairy, Progress Chart, Theory & Practical records etc.
7. Assess, evaluate and certify the tests.	Identify different types of test & its necessity.
	Set different types of question on different levels of learning in cognitive domain according to Bloom Taxonomy.
	Set an ideal question paper & evaluate.
	Apply various evaluation techniques & marking schemes.
	Undertake competence based assessment as per standards.
	Conduct formative assessment and summative assessment.
8. Organize workshop and classroom learning observing instructional methods.	Carry out management of Workshop & Class room.
	Demonstrate group teaching and learning.
	Explain housekeeping & safety rules in Instructional area.
	Conduct debate on quality Concept & 5'S.
9. Counsel & mentor the trainees by identifying their Strength & Weaknesses.	Handle trainee's grievances.
	Boost Morale of trainees.
	Conduct SWOT analysis for identifying their Strength & Weaknesses.
	Plan and Prepare the parameters for skills required to become a good trainer.
	Write a good CV.



10. Develop Entrepreneurship skills.	Use effective leadership Traits.
	Apply Stress management techniques.
	Plan & Use Time management techniques.
	Interpret the sequence of operation for setting up a small business from the flow sequence diagram
	Analyze the impact of quality and list the importance of quality.
11. Apply ICT & Internet in training (computer based training) and various types of Distance learning programmes.	Use internet, Email application, Fax etc.
	Prepare transparency sheet with the help of computer.
	Prepare Slides by Power Point.
	Conduct Interactive Class on Video Conference.
	Install and commission equipments at Spokes level.
12. Conduct competency-based training using QP/ NOS and NSQF guidelines	Interpret one LO, QP, NOS for NSQF alignment.
	Explain learning outcomes.
	Identify different roles of NSDA, NSDC and SSC.
13. Apply Adult Learning Principles.	Apply adult learning in simulated environment.
	Identify various factors affecting adult learning
	Use role plays using the principles of adult learning.
	Apply techniques to create and maintain a positive learning environment.
14. Develop and implement continuous professional development plan.	Develop a professional development plan to enhance professional capabilities.
	Implement CPD in instructor career.

## NSQF QUALIFICATION FILE Agro Processing (CITS)

### SECTION 2

#### 25. EVIDENCE OF LEVEL

Title/Name of qualification/component: AGRO PROCESSING Level: 6			
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relates to the NSQF level descriptors	NSQF Level
Process	<p><b>Demands wide range of specialized technical skill, clarity of knowledge and practice in broad range of activity involving standard non standard practices</b></p> <ul style="list-style-type: none"> <li>• Demonstrate operation, handling and maintenance of agro processing machinery.</li> <li>• Test and evaluate storing and packaging materials.</li> <li>• Plan for various production processes of different wheat products and detection of extraneous matter in those along with determination of several physical parameters.</li> <li>• Demonstrate various processing of paddy for rice and evaluate its quality.</li> </ul>	<p>As per the learning outcomes, the learner is expected to demonstrate operation, handling and maintenance of agro processing machinery, plan for various production processes of different wheat products and detection of extraneous matter in those along with determination of several physical parameters etc.</p> <p>The above tasks performed by the learner, demands wide range of specialized technical skills, clarity of knowledge and practice in broad range of activity involving standard and non standard practices.</p> <p>Hence NSQF Level 6 is justified for this descriptor.</p>	6
Professional	<b>Factual &amp; theoretical knowledge in broad</b>	The learner is expected to possess the	6

## NSQF QUALIFICATION FILE Agro Processing (CITS)

Title/Name of qualification/component: AGRO PROCESSING Level: 6			
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relates to the NSQF level descriptors	NSQF Level
knowledge	<p><b>contexts within the field of work or study</b></p> <ul style="list-style-type: none"> <li>• Primary and secondary processing of wheat and corn.</li> <li>• Pre-milling treatments of pulses, pulse milling and recent developments.</li> <li>• Nutritional importance and functions of oils from plant sources.</li> <li>• Unit operations in spices processing: Principles, method and machinery in spice grinding.</li> </ul>	<p>knowledge about primary and secondary processing of wheat and corn, pre-milling treatments of pulses, pulse milling and recent developments etc.</p> <p>The above professional knowledge possessed by the learner are the factual &amp; theoretical knowledge in broad context required in this field of work or study.</p> <p>Hence NSQF Level is 6 for this descriptor.</p>	
Professional skill	<p><b>A range of cognitive and practical skills required to generate solutions to specific problems in the field of work or study</b></p> <ul style="list-style-type: none"> <li>• Test and evaluate storing and packaging materials.</li> <li>• Demonstrate milling operations in production of dal (pulse) along with detection of khesari dal and metanil yellow.</li> <li>• Demonstrate procurement &amp; processing</li> </ul>	<p>The learning outcomes for example 'Plan and execute extraction, refining and purification of oil and determination of its quality parameters', 'Demonstrate milling operations in production of dal (pulse) along with detection of khesari dal and metanil yellow' etc. require a range of cognitive and practical skills to accomplish tasks and generate solutions to specific problems in this field of work. It involves understanding requirements, then decide the</p>	6

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Title/Name of qualification/component: AGRO PROCESSING Level: 6			
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relates to the NSQF level descriptors	NSQF Level
	<p>of Spice powders and identification of various quality parameters of the same.</p> <ul style="list-style-type: none"> <li>Plan and execute extraction, refining and purification of oil and determination of its quality parameters.</li> <li>Demonstrate various processing of paddy for rice and evaluate its quality.</li> </ul>	<p>operations/procedure/tools which will achieve desired results; planning the sequence of operations to maximize efficiency/effectiveness; constantly checking and reviewing plan etc., all of which involve problem solving and decision making skills.</p> <p>Hence NSQF Level 6 is justified for this descriptor.</p>	
<b>Core skill</b>	<p><b>Understanding of social/political environment</b></p> <ul style="list-style-type: none"> <li>Describe method of energy conservation and day-to-day contribution to work for optimum utilization of resources.</li> </ul> <p><b>Collecting, Organising information and logical communication</b></p> <ul style="list-style-type: none"> <li>Exhibit attitude &amp; effective communication skills with logical reasoning ability to maximize efficiency at work.</li> <li>Demonstrate English language fluency</li> </ul>	<p>The learning outcomes for example 'Describe method of energy conservation and day-to-day contribution to work for optimum utilization of resources.', 'Demonstrate English language fluency while carrying out official work' display the attributes where the learner needs to display reasonably good expertise in self representation with time management. The learner is also expected to communicate by oral and spoken skills- voice, observe case study, group discussion, listening skills and motivational skills. The trainee is supposed to exhibit the well</p>	6

## NSQF QUALIFICATION FILE Agro Processing (CITS)

Title/Name of qualification/component: AGRO PROCESSING Level: 6			
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relates to the NSQF level descriptors	NSQF Level
	while carrying out official work.	groomed personality and confidence level in work for optimum utilization of resources and implement the understanding of social, political environment and some skill of collecting and organising information and deliver logical communication.  Hence NSQF Level 6 is justified for this descriptor.	
<b>Responsibility</b>	<b>Responsibility for own work and learning and full responsibility for other's works and learning</b> <ul style="list-style-type: none"> <li>• Demonstrate operation, handling and maintenance of agro processing machinery.</li> <li>• Plan for safe production processes of foods and identification of wastes in Agro industry along with its proper utilization.</li> <li>• Plan and execute extraction, refining and purification of oil and determination</li> </ul>	The learner is able to guide, monitor, assess and review the work performed by the team members and ensures effective operation and maintenance of Trade oriented equipments. He/she is able to demonstrate possible solutions, check tasks within the team and communicate logically. The learner plans and organizes assigned work and detects and resolves issues during execution taking responsibility for own work and learning and full responsibility for other team member's works as well.	6

**NSQF QUALIFICATION FILE** Agro Processing (CITS)

Title/Name of qualification/component: AGRO PROCESSING Level: 6			
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relates to the NSQF level descriptors	NSQF Level
	of its quality parameters.	Hence NSQF Level 6 is justified for this descriptor.	

**SECTION 3**

**EVIDENCE OF NEED**

26	<p><b>What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?</b></p> <table border="1" data-bbox="331 551 1383 1816"> <thead> <tr> <th data-bbox="331 551 619 692"><b>Basis</b></th> <th data-bbox="619 551 1383 692"><b>In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="331 692 619 1200">Need of the qualification</td> <td data-bbox="619 692 1383 1200"> <p>The Food Industry sector has a significant presence of organized as well as unorganized skilled manpower requirement. This sector is poised to grow exponentially in the years to come and is highly labour intensive and there are many emerging trends in this sector.</p> <p>Hence the qualification has been designed keeping in view to cater to the ever increasing demand of skilled Instructors for Technicians in consultation with stakeholders.</p> <p>The Proposed qualification is running in various NSTIs since very long.</p> </td> </tr> <tr> <td data-bbox="331 1200 619 1541">Industry Relevance</td> <td data-bbox="619 1200 1383 1541"> <p>The job role defined for the qualification is as per the National Qualification of Occupation 2015 which is developed by Employment Directorate under the ministry of Labour and Employment in collaboration with different industry partners and as per ILO guidelines. Moreover the training is imparted in industry where such facilities/ infrastructure are available.</p> </td> </tr> <tr> <td data-bbox="331 1541 619 1753">Usage of the qualification</td> <td data-bbox="619 1541 1383 1753"> <p>The Proposed qualification will cater to ever increasing demands of Trained Instructors/Workshop Supervisor and the course has been designed as per demand of the industry/vocational institutions.</p> </td> </tr> <tr> <td data-bbox="331 1753 619 1816">Estimated uptake</td> <td data-bbox="619 1753 1383 1816">78</td> </tr> </tbody> </table>	<b>Basis</b>	<b>In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</b>	Need of the qualification	<p>The Food Industry sector has a significant presence of organized as well as unorganized skilled manpower requirement. This sector is poised to grow exponentially in the years to come and is highly labour intensive and there are many emerging trends in this sector.</p> <p>Hence the qualification has been designed keeping in view to cater to the ever increasing demand of skilled Instructors for Technicians in consultation with stakeholders.</p> <p>The Proposed qualification is running in various NSTIs since very long.</p>	Industry Relevance	<p>The job role defined for the qualification is as per the National Qualification of Occupation 2015 which is developed by Employment Directorate under the ministry of Labour and Employment in collaboration with different industry partners and as per ILO guidelines. Moreover the training is imparted in industry where such facilities/ infrastructure are available.</p>	Usage of the qualification	<p>The Proposed qualification will cater to ever increasing demands of Trained Instructors/Workshop Supervisor and the course has been designed as per demand of the industry/vocational institutions.</p>	Estimated uptake	78
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Estimated uptake	78										
27	<p><b>Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences.</b></p> <p>This qualification is recommended by DGT (Regulatory Body) under Ministry of Skill Development and Entrepreneurship.</p>										

## NSQF QUALIFICATION FILE Agro Processing (CITS)

28	<p><b>What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification</b></p> <p>The qualification is originally designed and approved by DGT for the Craftsmen Instructor Training Scheme and is in existence for many years and is especially designed to suit the requirements of vocational training. No such duplicate qualification of same duration and competencies exists.</p>
29	<p><b>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? Specify the review process here</b></p> <ul style="list-style-type: none"><li>• The research wing of CSTARI &amp; DGT reviews and updates the qualification, in consultation with various stakeholders, on a regular basis by conducting trade committee meetings.</li><li>• DGT will keep on doing continuous comparative study in the trade by referring to relevant upcoming qualifications in the National Qualifications Register (NQR) and relevant sectors.</li></ul>

### **SECTION 4**

#### **EVIDENCE OF PROGRESSION**

30	<p><b>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?</b></p> <p><b><i>Show the career map here to reflect the clear progression</i></b></p> <ul style="list-style-type: none"><li>• Qualifying trainee will obtain a DGT Certificate (NCIC) in “Agro processing” trade which gives the following options of progression to the trainee:<ul style="list-style-type: none"><li>i) Can join as an Instructor in a Vocational Training Institute/ Technical Institution.</li><li>ii) Can join as a supervisor in Industries.</li></ul></li></ul>
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