

Weed Management in Paddy

Unit Code	AGR/ N 0004
Unit Title (Task)	Weed Management in Paddy
Description	This OS is for a Paddy farmer who is responsible for Weed Management.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> Weed Management
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Weed Management	To be competent, the individual on the job must be able to: <ul style="list-style-type: none"> PC.1 Incorporate the weeds and stubbles during summer ploughing and puddling PC.2 Manual weeding / chemical weedicide application at appropriate stages of crop growth PC.3 Use of bio herbicides for weed control wherever feasible PC.4 Maintain Field bunds clean to avoid proliferation of weed seeds
Knowledge and Understanding (K)	
A. Weed	The individual on the job needs to know and understand: <ul style="list-style-type: none"> KA1. Various weeds and their influence on crop yield KA2. Types of weeds and their efficient control methods KA3. Types of weeds and their means of propagation KA4. Critical Stages of weed control
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Reading and Comprehension Skills
	The individual on the job needs to know and understand how to : <ul style="list-style-type: none"> SA1. Update meet on the latest technologies used in weed management by reading the newspaper and magazines SA2. Keep abreast with the latest knowledge by reading brochures, pamphlets, and product information sheets SA3. Read the hazards of use and contamination written on the labels of herbicides
	Oral Communication (Listening and Speaking skills)
	The individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA4. Communicate clearly and effectively with others like Agriculture Department Officials / Extension Workers, Co-farmers etc. SA5. Co-operate with others in accordance with required procedures SA6. Understand information and grasp its meaning SA7. Seek advice from people and experts
B. Professional Skills	Decision Making
	The individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SB1. Make decisions pertaining to the concerned area of work SB2. Identify problems that may arise in carrying out tasks and take preventative

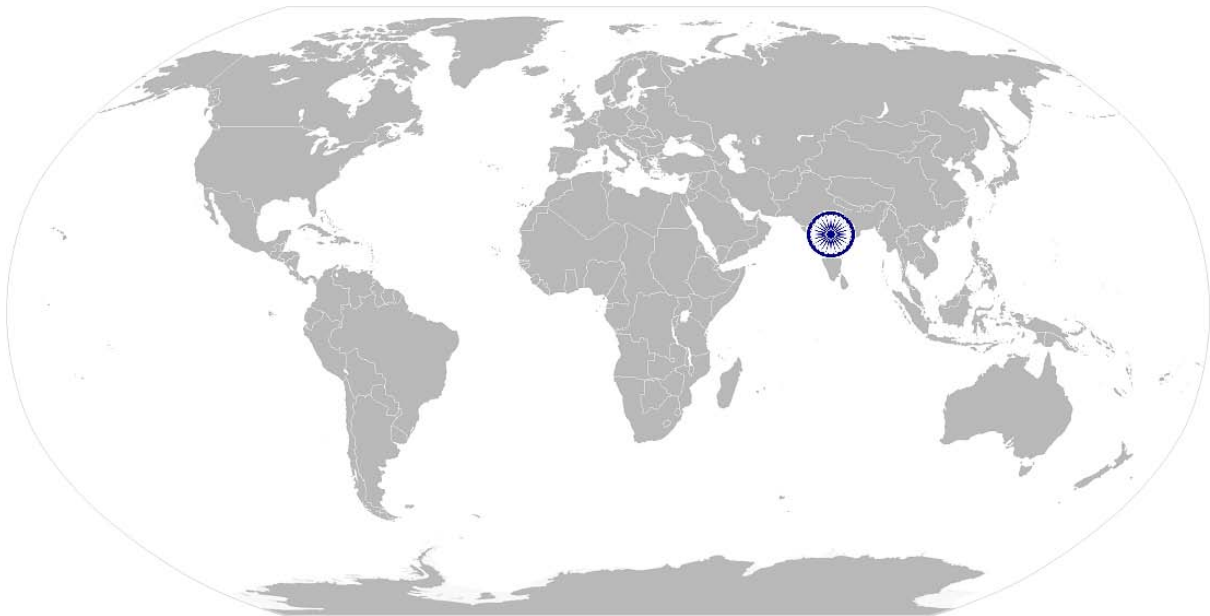
Weed Management in Paddy

	action collective farming procedures
	SB3. Follow basic arithmetic and algebraic principles
	Plan and Organize
	The individual on the job needs to know and understand how to:
	SB4. Plan and organize timely weed management
	Workshop Centricity
	The individual on the job needs to know and understand how to:
	SB5. Participate in paddy exhibition/seminar/workshop
	Labour Management
	The individual on the job needs to know and understand how to:
	SB6. Manage relationships with labourers
	SB7. Build relationships and use human centric approach
	Problem Solving
The individual on the job needs to know and understand how to:	
SB8. Think through the problem, evaluate the possible solution(s) and take up an optimum /best possible solution(s)	
SB9. Identify temporary and quick solutions to resolve delays	
Analytical Thinking	
The individual on the job needs to know and understand how to:	
SB10. Monitor and maintain the condition of tools and equipment required for weeding	
SB11. Integrate various methods or effective weed control	
Critical Thinking	
The individual on the job needs to know and understand how to:	
SB12. Apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action	
SB13. Take up his own working and learning	

NOS Version Control

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Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Agriculture	Drafted on	17/06/13
Industry Sub-sector	Field Crops	Last reviewed on	08/08/13
		Next review date	10/02/14

National Occupational Standard



Overview

This unit is about dealing with Integrated Pest and Disease Management

Integrated Pest and Disease Management in Paddy

Unit Code	AGR / N 0005
Unit Title (Task)	Integrated Pest and Disease Management in Paddy
Description	This OS is for a Paddy farmer who is responsible for carrying out pest and disease management
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Identification of pests and understanding behaviour • Identification of diseases • Preventive and curative methods
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Identification Of Pests And Understanding Behavior	To be competent, the user / individual on the job must be able to: <ul style="list-style-type: none"> PC1. Identifying types of pests (stem borers, gall midge, hoppers, hispa and gundhibug etc) in paddy crop PC2. Identify Stage of crop and pest incidence – and prepare pest calendar PC3. Diagnosis: Signs and symptoms of damage (dead hearts, burns, feeding marks) PC4. Identify the Pest life cycle duration PC5. Identify behavior of the pest (like diurnal or nocturnal, egg laying behavior, attraction to colours etc) PC6. Identify natural enemies of the pests (naids/dragon flies, trichogramma, mirid bug, lady bird beetles, spiders, preying mantids etc)
Identification Of Diseases	<ul style="list-style-type: none"> PC7. Identify types of diseases associated (blast, bacterial leaf blight, sheath rot, sheath blight, tungro) in the crop PC8. Identify Crop stage and disease incidence – disease calendar PC9. Identify signs and symptoms of different diseases (leaf spots, discoloured areas, leaf margins drying, stunted growth) PC10. Identify mode of transmission (implements, vectors, water, rain, wind)
Preventive And Curative Methods	<ul style="list-style-type: none"> PC11. Stubble clearing to drive away the diapausing larvae PC12. Use of resistant varieties PC13. Seed and seedling treatment PC14. Take up planting modification (like System of Rice Intensification - SRI or dry sowing) PC15. Using various traps (light, pheromone etc) PC16. Erecting bird perches PC17. Various sprays <ul style="list-style-type: none"> a. Chemical approaches: As recommended by State Agricultural University b. Non-chemical approaches: Neem Seed Kernel Extract, cow dung and Urine spray, panchagavya spray, 5 leaf extract, 10 leaves extract, sour butter milk extract. etc based on pest type

Knowledge and Understanding (K)	
A. Technical Knowledge	<p>The individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KA1. Importance of safe production and safe produce KA2. Paddy growing conditions (conventional or SRI) KA3. Major pests and diseases and their behaviour KA4. Operations that have an impact on pest incidence and need to be taken up while land preparation and sowing (stubble clearing, resistant varieties, seed and seedling treatment etc) KA5. Advantages and methods of soil application of neem cake, bioagents like trichoderma viride, pseudomonas florescens etc. KA6. Advantages of erecting bird perches 10 per acre. KA7. Various traps (one light trap and 4 pheromone traps) KA8. Advantages of various resource plants (neem, pongamia, vitex, etc) KA9. Methods & procedures of preparing various biopesticides (neem seed kernel extract, cow dung urine solution, panchagavya) KA10. Record keeping system. KA11. Safety measures and first aid KA12. Handling tools and equipment. KA13. National and International Standards on Pesticide residues
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SA1. Keep records SA2. Report problems to the appropriate personnel in a timely manner viz Extension worker, Agriculture officer
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SA3. Update oneself about the latest technologies used in pest and disease management in paddy by reading the newspaper and magazines SA4. Keep abreast with the latest knowledge by reading brochures, pamphlets and product information sheets
	Oral Communication (Listening and Speaking skills)
	<p>The individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SA5. Maintain effective working relationships SA6. Communicate clearly and effectively with others like neighbouring farmers, extension workers etc SA7. Co-operate with others for various field operations SA8. Understand information and grasp its meaning
B. Professional Skills	Decision Making
	<p>The individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SB1. Make decisions pertaining to various methods & status of Pest & other diseases control SB2. Identify problems that may arise in carrying out tasks and take preventative action in field operations

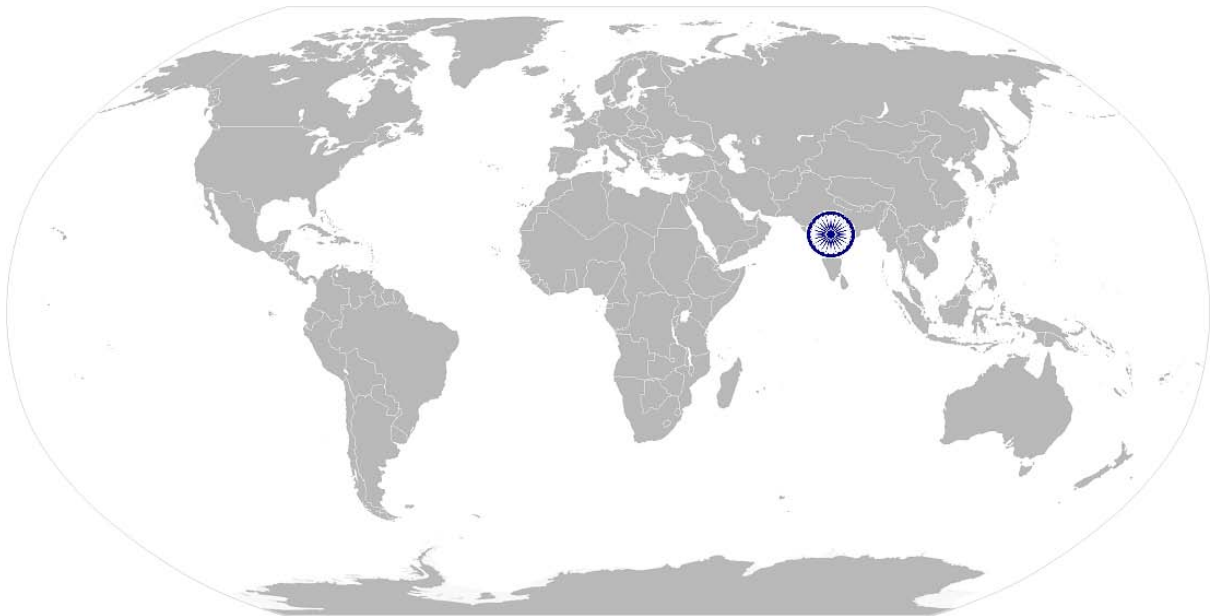
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Integrated Pest and Disease Management in Paddy

	Plan and Organize
	The individual on the job needs to know and understand: SB3. Plan and implement paddy pest and disease management
	Workshop Centricity
	The individual on the job needs to know and understand how to: SB4. Participate in Paddy exhibition/seminar/workshop. SB5. Make use of exposure visit
	Labour Management
	The individual on the job needs to know and understand how to: SB6. Manage relationships with labourers SB7. Build relationships and use human centric approach
	Problem Solving
	The individual on the job needs to know and understand how to: SB8. Think through the problem, evaluate the possible solution(s) and take up an optimum /best possible solution(s) SB9. Identify quick & feasible solutions to resolve delays
	Analytical Thinking
	The individual on the job needs to know and understand how to: SB10. Monitor and maintain the condition of tools and equipment required for paddy pest management SB11. Monitor the paddy pests and diseases and maintain the plants in good condition. Maintain the records of stage of crop and pest / disease incidence and options used.
	Critical Thinking
	The individual on the job needs to know and understand how to: SB12. Apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action

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Industry Sub-sector	Field Crops	Last reviewed on	08/08/13
		Next review date	10/02/14

National Occupational Standard



Overview

This unit is about dealing with Irrigation Management in Paddy cultivation.

Irrigation Management in Paddy

Unit Code	AGR / N 0006
Unit Title (Task)	Irrigation Management in Paddy Cultivation.
Description	This OS is for a paddy who is responsible for Irrigation management
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Irrigation Management
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Irrigation Management	To be competent, the individual on the job must be able to: PC1. During the standing crop period, moisture stress may be avoided through regular water supply as per recommended procedure PC2. Water drainage may be ensured at appropriate status during / prior to certain crop stages such as fertilizer application, flowering, harvesting etc., PC3. Avoid water loss through seepage and leaching
Knowledge and Understanding (K)	
A. Irrigation Management	The individual on the job needs to know and understand: KA1. Interaction affects of the soil type, level of the land and water availability on the crop growth and its yield KA2. Timing and method of irrigation appropriate for a given soil type
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Reading and Comprehension Skills
	The individual on the job needs to know and understand how to: SA1. Update oneself about the latest technologies used irrigation management by reading the newspaper and magazines SA2. Read relevant newspapers/booklets
	Oral Communication (Listening and Speaking skills)
	The individual on the job needs to know and understand how to: SA3. Maintain effective working relationships SA4. Communicate clearly and effectively with others like neighbouring farmers, concerned office bearers of irrigation department and stakeholders SA5. Understand information and grasp its meaning
B. Professional Skills	Decision Making
	The individual on the job needs to know and understand how to: SB1. Make decisions pertaining to the concerned area of work SB2. Identify problems that may arise in carrying out tasks and take preventative action following field procedures of collective irrigation management SB3. Follow basic arithmetic and algebraic principles
	Plan and Organize

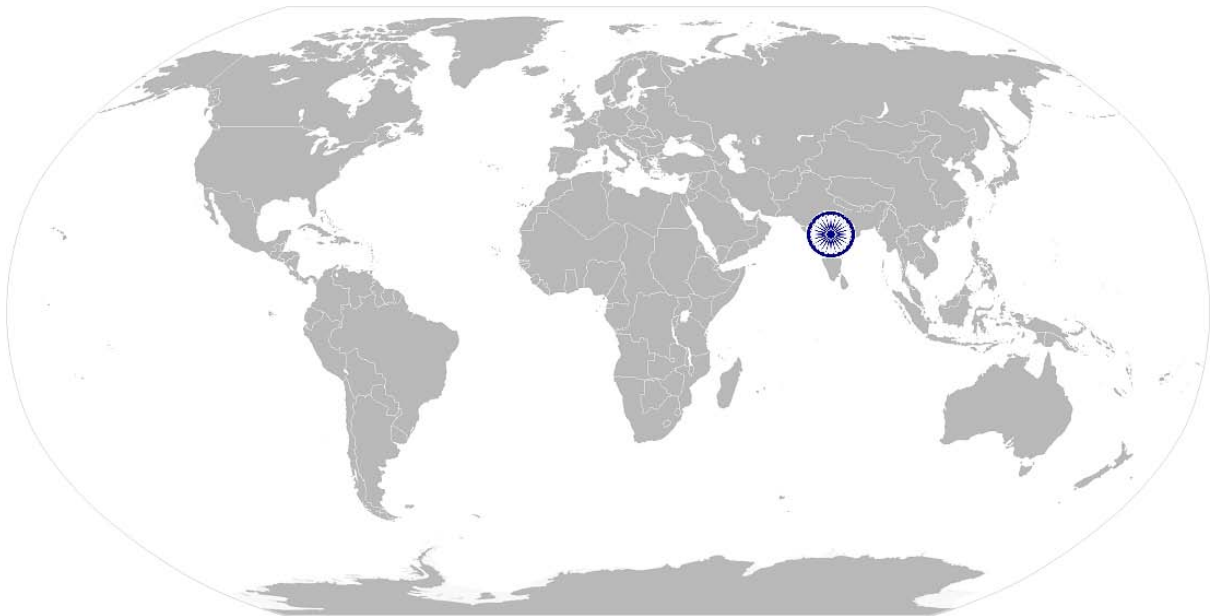
Irrigation Management in Paddy

	The individual on the job needs to know and understand how to: SB4. Plan and organize timely irrigation and drainage
	Workshop Centricity
	The individual on the job needs to know and understand how to: SB5. Participate in exhibition/seminar/workshop related to paddy. SB6. Make use of exposure visit SB7. Work with paddy experts
	Labour Management
	The individual on the job needs to know and understand how to: SB8. Manage relationships with labourers SB9. Build relationships and use human centric approach
	Problem Solving
	The individual on the job needs to know and understand how to: SB10. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB11. Identify immediate or temporary solutions to resolve delays
	Analytical Thinking
	The individual on the job needs to know and understand how to: SB12. Monitor and maintain the condition of tools and equipment required for Irrigation Management
	Critical Thinking
The individual on the job needs to know and understand how to: SB13. Apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action SB14. Take up his own working and learning	

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Industry Sub-sector	Field Crops	Last reviewed on	08/08/13
		Next review date	10/02/14

National Occupational Standard



Overview

This unit is about dealing with Harvesting and Post Harvest Management in Paddy.

Harvesting and Post Harvest Management in Paddy

Unit Code	AGR / N 0007
Unit Title (Task)	Harvesting and Post Harvest Management in Paddy
Description	This OS is for a Paddy farmer who is responsible for Harvesting and Post Harvest Management.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Harvesting • Storage and Post Harvest Management
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Harvesting	To be competent, the individual on the job must be able to: <ul style="list-style-type: none"> PC1. Harvest the crop at the appropriate stage PC2. Dry the harvested produce to remove moisture PC3. Threshing and Winnowing
Storage and Post Harvest Management	<ul style="list-style-type: none"> PC4. Maintenance of ideal storage conditions PC5. Manage Storage Pests
Knowledge and Understanding (K)	
A. Harvesting	The individual on the job needs to know and understand : <ul style="list-style-type: none"> KA1. Ideal stage of harvesting KA2. Methods to avoid grain loss during harvest
B. Storage and Post Harvest Handling	The individual on the job needs to know and understand : <ul style="list-style-type: none"> KB1. Various Methods of Storage and their influence on the grain quality KB2. Various methods of storage and their cost dynamics KB3. Chemicals and other cultural methods that may be used to prevent losses from storage pests
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Reading and Comprehension Skills
	The individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA1. Update oneself about the latest technologies used in paddy harvesting and storage by reading the newspaper and magazines SA2. Keep abreast with the latest knowledge by reading brochures and pamphlets SA3. Read relevant newspapers/booklets SA4. Read the hazards of use and contamination written on the labels of pesticides
	Oral Communication (Listening and Speaking skills)
	The individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA5. Communicate clearly and effectively with others like labourers, extension workers and agriculture experts SA6. Co-operate with others in accordance with required procedures SA7. Understand information and grasp its meaning SA8. Seek advice from senior people and agriculture expert
B. Professional Skills	Decision Making

Harvesting and Post Harvest Management in Paddy

	<p>The individual on the job needs to know and understand how to:</p> <p>SB1. Make decisions pertaining to the concerned area of work</p> <p>SB2. Identify problems that may arise in carrying out tasks and take preventative action following field procedures</p> <p>SB3. Do basic arithmetic and algebraic principles</p>
	<p>Plan and Organize</p>
	<p>The individual on the job needs to know and understand how to:</p> <p>SB4. Plan and organize harvesting and storage so as to get maximum market prices for the crop produce</p>
	<p>Workshop Centricity</p>
	<p>The individual on the job needs to know and understand how to:</p> <p>SB5. Participate in exhibition/seminar/workshop related to paddy.</p> <p>SB6. Make use of exposure visit</p>
	<p>Labour Management</p>
	<p>The individual on the job needs to know and understand how to:</p> <p>SB7. Manage relationships with labourers</p> <p>SB8. Build relationships and use human centric approach</p>
	<p>Problem Solving</p>
	<p>The individual on the job needs to know and understand how to:</p> <p>SB9. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s)</p> <p>SB10. Deal with others farmers lacking the technical knowledge for paddy harvesting and storage to solve the problem on their own</p> <p>SB11. Identify immediate or temporary solutions to resolve delays</p>
	<p>Analytical Thinking</p>
	<p>The individual on the job needs to know and understand how to:</p> <p>SB12. Monitor and maintain the condition of tools and equipment required for paddy harvesting, drying and storage</p>
	<p>Critical Thinking</p>
	<p>The individual on the job needs to know and understand how to:</p> <p>SB13. Apply, analyze and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action</p> <p>SB14. Take up his own working and learning</p>

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Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Agriculture	Drafted on	17/06/13
Industry Sub-sector	Field Crops	Last reviewed on	08/08/13
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