



HABIB SUGAR MILLS LIMITED NAWABSHAH

Risks & Opportunities Assessment Sugar cane field (HSE, HLR & Food Safety)

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Sr.No	Activities/ Processes	Hazard Type. Physical (P), Chemical (C), Biological (B), Food Safety (F) Environment (E), Human & Labor Rights (HLR)	Hazards	Risk Effect/ Risk	Existing Controls	Risk Evaluation			Additional Controls	Residual Risk		
						P	S	R		P	S	R
1	Soil & water Testing	P	Sharp edges of sampling tools	Minor Injuries	Use gloves, Inspected tools	2	2	4				
		E	Dust exposure	Respiratory problems due to dust	Use face mask	2	2	4				
		P	Slip/ Trip	Minor Injuries	Use rubber safety boots	1	2	2				
		E	Hot weather/ Heat stress	Dehydration	Safe drink frequent water, Use wide brim hat, rest shelter.	2	2	4				
		P	Incompetent/ Untrained person	Input expenditure	Trained & experience worker	1	2	2				
		HLR	Harassment	Employee turnover	1. Hiring of trained employees 2. Grievance mechanism procedure	1	2	2				
		HLR	Discrimination towards employees	Negative attitudes	1. Hiring of trained & merit based employees 2. Grievance mechanism procedure	1	2	2				
HLR	Child labor	Accidents / suffer education / illiteracy	1. Child labor (blow 18 years age) are strictly prohibited. 2. Verification of age by CNIC. 3. Human/ Labor Right Policy (SOP-0423)	1	1	1						
2	Land Preparation (Rotavator, Chieseling, Cultivator, Lazer Levelling, Ridge Making)	P	Unguarded rotary parts (Drives gears, motor belts)	Worker may entangled into rotatory parts. 1. Permanent disability. 2. Minor & major injury.	1. Loose cloths & kerchief are not allowed 2. Safe guard of rotatory parts.	1	3	3				
		E	Dust exposure	Respiratory problems due to dust	Use face mask	2	2	4				
		P	Collision of tractor	Minor and major Injuries Property loss	Valid license holder driver. Vehicle inspection. Banks man	2	2	4				
		E	Hot weather/ Heat stress	Dehydration	Drink frequent water, Use Wide Brim Hat, rest shelter.	2	2	4				
		P	Fire due to equipment loose wiring	Fire and explosion	Ensure proper maintenance	1	2	2				
		E	High noise	Chronic effects ears, hearing loss.	Use of ear plugs to prevent from hearing loss, area to highlight with ear protection safety signage's.	2	2	4				

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2	Land Preparation (Rotavator, Chieseling, Cultivator, Lazer Levelling, Ridge Making)	P	Sharp edges of ridger	Minor hand injury	Use hand Gloves & safety shoes	2	2	4				
		HLR	Harassment	Employee turnover	1. Hiring of trained employees 2. Grievance mechanism procedure	1	2	2				
		HLR	Discrimination towards employees	Negative attitudes	1. Hiring of trained & merit based employees 2. Grievance mechanism procedure	1	2	2				
		HLR	Child labor	Accidents / suffer education / illiteracy	1. Child labor (blow 18 years age) are strictly prohibited. 2. Verification of age by CNIC. 3. Human/ Labor Right Policy (SOP-0423)	1	1	1				
3	Seed Selection	P	Sharp edges	Minor hand injury	Use hand Gloves & safety shoes	2	2	4				
		E	Standing crop dust	Respiratory problems due to dust	Use of Mask	2	2	4				
		P	Incompetent person	Production loss	Trained & experience worker	1	2	2				
4	Seed Treatment(Fungicide)	C, E & F	Exposure of chemical	Skin irritation, eye irritation, respiratory problems Toxic to aquatic life.	MSDS COA Use PPEs	2	2	4				
		C, E & F	Hazardous waste (Chemical container)	Empty chemicals container, Hazardous waste effects on health (infections & diseases)	1. Training on chemical handling of staff. 2. Allocate hazardous waste collection spot. 3. Personal protective equipment for cleaning and handling.	2	2	4				
		P	Slip/ Trip	Minor Injuries	Use rubber safety boots	2	2	4				
		HLR	Harassment	Employee turnover	1. Hiring of trained employees 2. Grievance mechanism procedure	1	2	2				
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5	Sugarcane Plantation	E	Dust exposure	Respiratory problems due to dust	Use face mask	2	2	4				
		P	Sharp edges of sickle/ Sugarcane leaf	Minor Injuries	Use PPEs	2	2	4				
		P	Incompetent labor	Production loss	Trained & experience worker	1	2	2				
		E	Hot weather/ Heat stress	Dehydration	Safe drink frequent water, Use wide brim hat, rest shelter.	2	2	4				
		HLR	Harassment	Employee turnover	1. Hiring of trained employees 2. Grievance mechanism procedure	1	2	2				
		HLR	Discrimination towards employees	Negative attitudes	1. Hiring of trained & merit based employees 2. Grievance mechanism procedure	1	2	2				
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6	Irrigation	E	Excessive water usage	1. Water scarcity. 2. Contamination due to waterlogging in low-lying areas. 3. Decreased aquatic biodiversity. 4. Damage to aquatic ecosystems.	1. Drip irrigation. 2. Maintain soil, tillage, soil testing, nutrient.	2	3	6	1. Fresh mulching. 2. Regularly check for leaks in the irrigation system			
		P	Slip/ Trip	Minor Injuries	Use rubber safety boots	2	2	4				
		B & P	Dog Biting	Tetanus, rabies, or sepsis.	Must have a stick	2	4	4				
		E	Hot weather/ Heat stress	Dehydration	Safe drink frequent water, Use wide brim hat, rest shelter.	2	2	4				
		HLR	Harassment	Employee turnover	1. Hiring of trained employees 2. Grievance mechanism procedure	1	2	2				
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7	Weedicide Application	C, E & F	Exposure of chemical	Skin irritation, eye irritation, respiratory problems Toxic to aquatic life.	MSDS COA Use PPEs	2	2	4				
		C & E	Hazardous waste (Chemical container)	Empty chemicals container, Hazardous waste effects on health (infections & diseases)	1. Training on chemical handling of staff. 2. Allocate hazardous waste collection spot. 3. Personal protective equipment for cleaning and handling.	2	2	4				
		E	Hot weather/ Heat stress	Dehydration	Safe drink frequent water, Use wide brim hat, rest shelter.	2	2	4				
8	Pesticide Application	C, E & F	Exposure of chemical / Use of banned pesticide	Skin irritation, eye irritation, respiratory problems Toxic to aquatic life.	MSDS COA Use PPEs Recommended dose application No use of banned pesticide	2	2	4				
		E	Hot weather/ Heat stress	Dehydration	Safe drink frequent water, Use wide brim hat, rest shelter.	2	2	4				
9	Fertilizer Application	C, E & F	Exposure of chemical	Skin irritation, eye irritation, respiratory problems Toxic to aquatic life.	MSDS COA Use PPEs	2	2	4				
		C & E	Hazardous waste (Chemical container)	Empty chemicals container, Hazardous waste effects on health (infections & diseases)	1. Training on chemical handling of staff. 2. Allocate hazardous waste collection spot. 3. Personal protective equipment for cleaning and handling.	2	2	4				
		E	Hot weather/ Heat stress	Dehydration	Safe drink frequent water, Use wide brim hat, rest shelter.	2	2	4				
		P	Incompetent person	Capital Loss Production Loss	Trained & experience worker, Proper Supervision	2	2	4				
10	Sugarcane Harvesting	E	Dust exposure	Respiratory problems due to dust	Use face mask	2	2	4				
		P	Sharp edges of sickle, Knife / Sugarcane leaf	Minor hand injury	Use hand gloves & safety shoes, Inspected tools	2	2	4				
		E	Hot weather/ Heat stress	Dehydration	Safe drink frequent water, use wide brim Hat, rest shelter.	2	2	4				
		B & P	Soil, roots and trash	Sugarcane may contaminate	1. Proper removal of trash 2. removal of roots 3. Proper handling to maintain cleaning of sugarcane	2	2	4				

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11	Loading of Sugarcane	E	Dust exposure	Respiratory problems due to dust	Use face mask	2	2	4				
		P	Fall of person from trolley height	Minor and major injury	Work at height training Proper supervision Do not hurry Safety signage's	2	2	4				
		P	Sugarcane bundles collapse (Falling object)	Minor and major injury	Work at height training Proper supervision Do not hurry Safety signage's Ensure proper stacking/ tie off properly sugarcane bundles	2	2	4				
		P	Exposure with metal tochain	Minor Injuries	Use safety gloves	1	3	3				
		P	Slip/ Trip	Minor Injuries	Use rubber safety boots	2	2	4				
		HLR	Harassment	Employee turnover	1. Hiring of trained employees 2. Grievance mechanism procedure	1	2	2				
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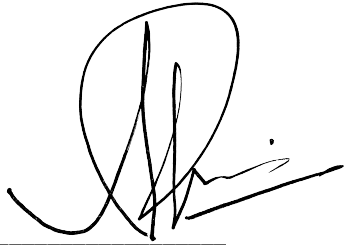
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12	Sugarcane Transportation	P	Collision of Tractor	Minor and major Injuries Property loss	Valid license holder driver. Vehicle inspection. Banks man	2	2	4				
		E	Dust exposure	Respiratory problems due to dust	Use face mask	2	2	4				
		P	Contact with overhead electric lines	Electrocution Property loss	Avoid over loading Competent driver Safe route	1	2	2				
		P	Fire due to equipment loose	Fire and explosion	Ensure proper maintenance	1	2	2				
		P	Tyre burst	Minor and major injury Property loss	Avoid over weight Check tyre pressure Inspection	2	2	4				
		P	Trolley invert	Property loss	Avoid over weight safe route. License holder driver Proper Tractor & Trolley maintenance, follow speed limits	1	2	2				
		E	Transportation	Air pollution / emissions	Proper maintenance of vehicle	2	2	4				
		E	High noise	Noise pollution / Chronic effects ears, hearing loss.	Proper maintenance of vehicle Use ear plugs	2	2	4				
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13	Trash Mulching	E	Dust exposure	Respiratory problems due to dust	Use face mask	2	2	4				
		P	Smoking	Fire Property loss	No smoking area. Safety signage's Proper supervision	1	4	4				
		HLR	Harassment	Employee turnover	1. Hiring of trained employees 2. Grievance mechanism procedure	1	2	2				
		HLR	Discrimination towards employees	Negative attitudes	1. Hiring of trained & merit based employees 2. Grievance mechanism procedure	1	2	2				
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14	Cane Quality Inspection	P	Disputes	Abuse of language Minor injury	Ensure quality cane Top & trash free cane	2	2	4				
		P	Political Issues	Road block, stop operations	Ensure quality cane Top & trash free cane	2	2	4				
		HLR	Harassment	Employee turnover	1. Hiring of trained employees 2. Grievance mechanism procedure	1	2	2				
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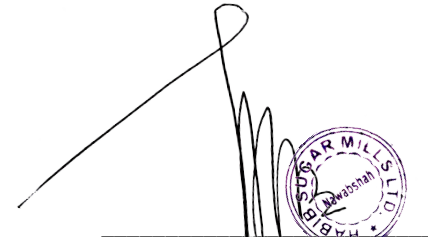
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Reviewed On	13-01-2020	Food safety related risks and opportunities added
Reviewed On	01-10-2022	ISO 9001: 2015, ISO 22000:2018, PS 3733:2019 and Certification process of Bonsucro production standard (V-5.1) & Chain of custody standard (V-5.1)

Probability X Severity = Risk Rating (6 to 9 = High) (3 to 4 = Medium) (1 to 2 = Low)	P: Probability S: Severity R: Risk
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