Chapter I : Preliminaries

1.1 Introduction

A pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest (insects, mites, nematodes, weeds, rats, etc.), including insecticide, herbicide, fungicide, and various other substances used to control pests (EPA, 2009). Definition of pesticide varied with times and countries. However, the essence of pesticide remains basically constant, i.e., it is a (mixed) substance that is poisonous and efficient to target organisms and is safe to non-target organisms and environments.

The history of pesticides can be divided into three phases (Zhang 2009): (1) in the first phase (the period before 1870s) natural pesticides, for instance sulfur in ancient Greece, were used to control pests; (2) the second phase was the era of inorganic synthetic pesticides (the period 1870s-1945). Natural materials and inorganic compounds were mainly used during this period; (3) the third phase (since 1945) is the era of organic synthetic pesticides. Since 1945, the man-made organic pesticides, e.g., DDT, 2,4-D, and later HCH, dieldrin, have terminated the era of inorganic and natural pesticides. Since then most pesticides have been synthesized by humans, and they were named chemical pesticides. The application of chemical pesticides, in particular theorganic synthesized pesticides has been a significant mark of human civilization, which greatly protects and facilitates agricultural productivity. In the earlier period of organic synthesized pesticides, there were mainly three kinds of insecticides, carbamated insecticides, organophosphorus insecticides and organochlorined insecticides. Sooner after that herbicides and fungicides achieved a considerable development as well. The consumption of insecticides is estimated to decline gradually and the use of herbicides would be popular in the future.

Varieties and consumption of pesticides worldwide have been increasing dramatically as increased human population and crop production. In this process pesticide misuses become more and more serious, which has resulted in heavy environmental pollution and health risk of humans. In order to safeguard human health, threatened species and ecosystems from pesticide pollution, the consumption and pollution of pesticides worldwide, especially nepal' situation is reviewed and documented in present study. Meanwhile, the development, management and registration trend of pesticide varieties and consumption was also prospected and discussed in the study. It was found that worldwide consumption structure of pesticides has undergone significant changes since 1960s. The proportion of herbicides in pesticide consumption increased rapidly and the consumption of insecticides and fungicides/bactericides declined. China has become the largest pesticide producer and exporter in the world. Nepal import pesticides from India.

1.2 Pesticides history in Nepal

According to PRMD, history of chemical pesticide use in Nepal is not old. Chemical pesticides for the first time were introduced in Nepal in 1952 when Paris green, gammexane and nicotine sulphate were imported from the USA exclusively for malaria control program. At november 1952, DDT was the first chemical pesticide introduced in Nepal by the MOH, Use of chemical pesticide in agriculture sector started in 1956 when MOAD imported DDT for pest control purpose

1.3 Current scenario of pesticide use

PRMD was also not clear about pesticides used pattern, there were various confusing data on pesticides use, however this division is authentic body of the government for pesticides statistic so whaever the data given that is valid data for us. As in PRMD report, In Nepal, the number of farmers using chemical pesticides has been increasing. The proportion of vegetable growers using pesticides increased from 7.1% in 1991/92 to 16.1% in 2001/2002 (CBS, 2006). In the case of cereal crop growers the rate of increase is small. In the last three census of 1981/82, 1991/92 and 2001/02, the percent of pesticide users among maize growers were 0.9, 2.8 and 4.2%, respectively (CBS, 2006). In the 1980s, one percent of the wheat growers applied pesticides in their farming operations (CBS, 2006) while less than one percent of the rice, maize, potato and sugarcane growers used pesticides during the same period. Among the development regions the use of chemical pesticides was higher (31.9% of the total use) in the Central Development Region and the lowest (6.4%) in the Far Western Development Region in 2001/02. Mainly organo phosphate, carbamates, synthetic pyrethroides, fungicides, herbicides, rodenticides, botanical pesticides, bio- pesticides and pesticide used in public health.

1.4 Trends and value of pesticide import

The annual imports of pesticides in Nepal is about 345 tons (a.i.) with 29.19% insecticides, 61.38% fungicides, 7.43% herbicides and 2% others. The gross sales and values account US $ 3.74 million per year (PRMD, 2011/12).

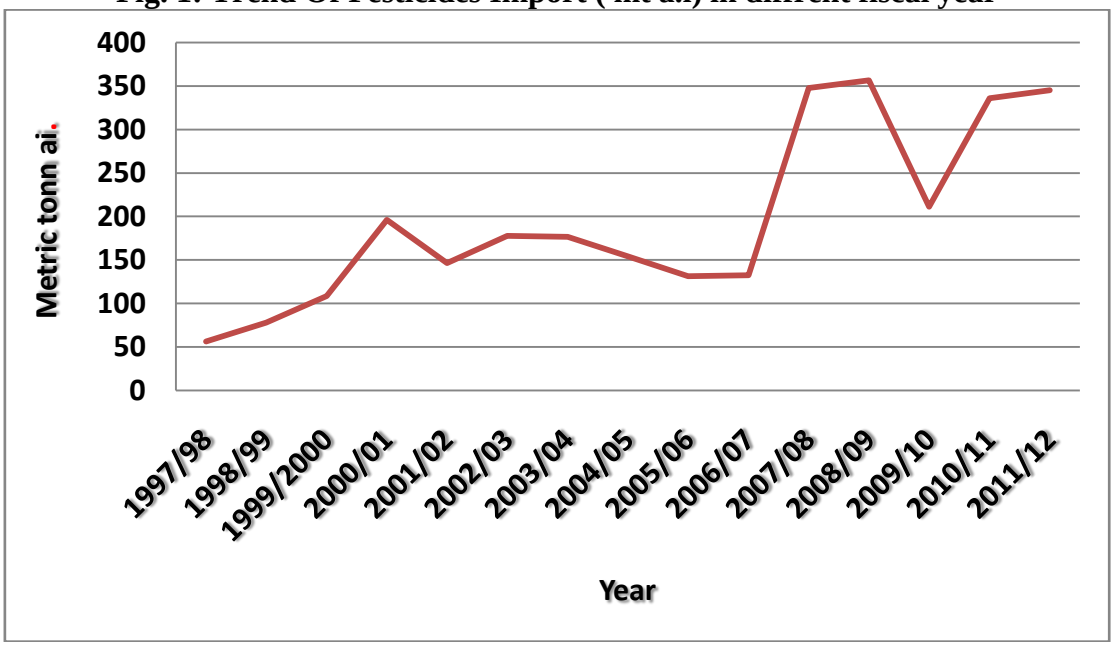
Table 1 : Trends and value of pesticide import

Year	Quantity (kg. a. i.)	Rupees (NRs, 000)
1997	56,172.56	5,13,87.94
1998	77,856.87 (+)	6,60,59.84
1999	1,08,427.82 (+)	8,45,17.61
2000	1,96,064.58 (+)	14,74,38.80
2001	1,46,152.48 (-)	14,86,20.34

Year	Quantity (kg. a. i.)	Rupees (NRs, 000)
2002	1,77,591.10 (+)	18,35,35.85
2003	1,76,372.81 (-)	12,31,58.14
2004	1,54,082.05 (-)	13,10,22.8
2005	1,31,270.43 (-)	13,00,25.6
2006	1,31,284.55 (+)	13,31,28.45
2007	3,47,494.50 (+)	27,26,81.3
2008	3,12,740.50 (-)	23,33,10.75 (-)
2009	2, 11, 079.34 (-)	20,76,88.05 (-)
2010	335673.52 (+)	397782.15 (+)
2011	345032.7 (+)	374908.2(-)

Source : PRMD, 2011/12

Fig. 1: Trend Of Pesticides Import (mt a.i) in diffrent fiscal year



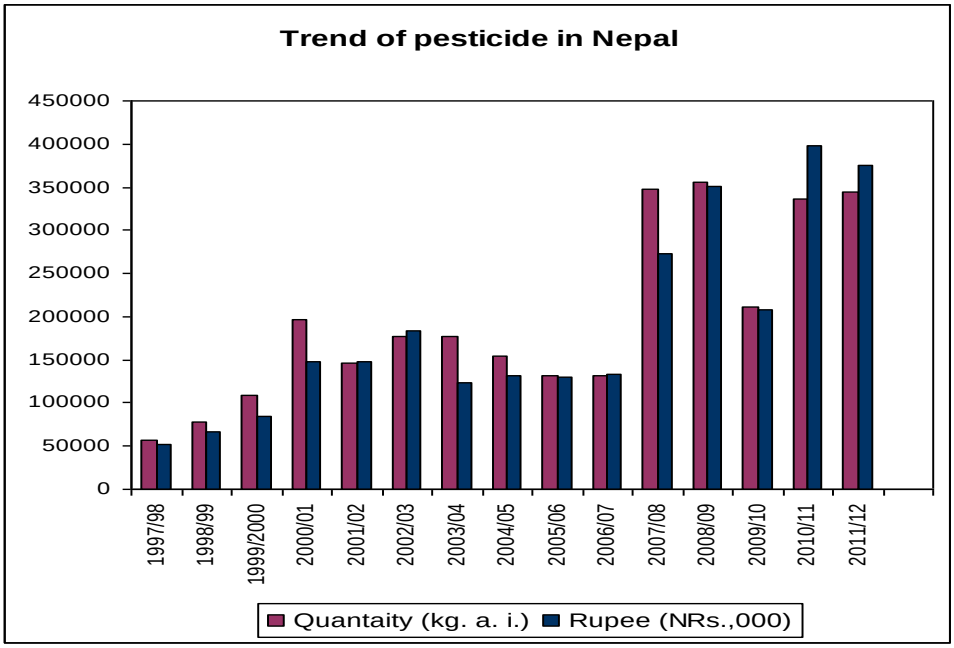


Table 2 : Insecticide imported and formulated for different purpose in 2011/12

Insecticide	a.i.		Formulation		Total monitary Value NRs. (000)	
	(Kg or L)	%	(Kg or L)	%	NRs '000	%
Agriculture	114484.1	99.65	544816.4	99.20	172058.4	97.98
House hold	233.6	0.20	2316.2	0.42	1800.3	1.03
Public health	174.0	0.15	2095.0	0.38	1746.1	0.99
Total	**114891.7**	**100.0**	**549227.6**	**100.0**	**175604.8**	**100.0**

Source : PRMD, 2011/12

1.5 Misuse of pesticides

As per discussion in PRMD and reviewed of literature showed that misuse of pesticides, especially the broad spectrum ones in Nepal has caused pests to adapt and become resistant to the pesticides (Yadav and Lian, 2009). Most pesticides are then required at higher doses to achieve the same level of control. Farmers generally do not follow the pre-harvest waiting period. They apply pesticides near harvesting time, and some farmers even dip vegetables in pesticides before selling (Dahal, 1995; Sharma, 2011). Misuse of pesticides has been reported from farmers, distributors and importers who do

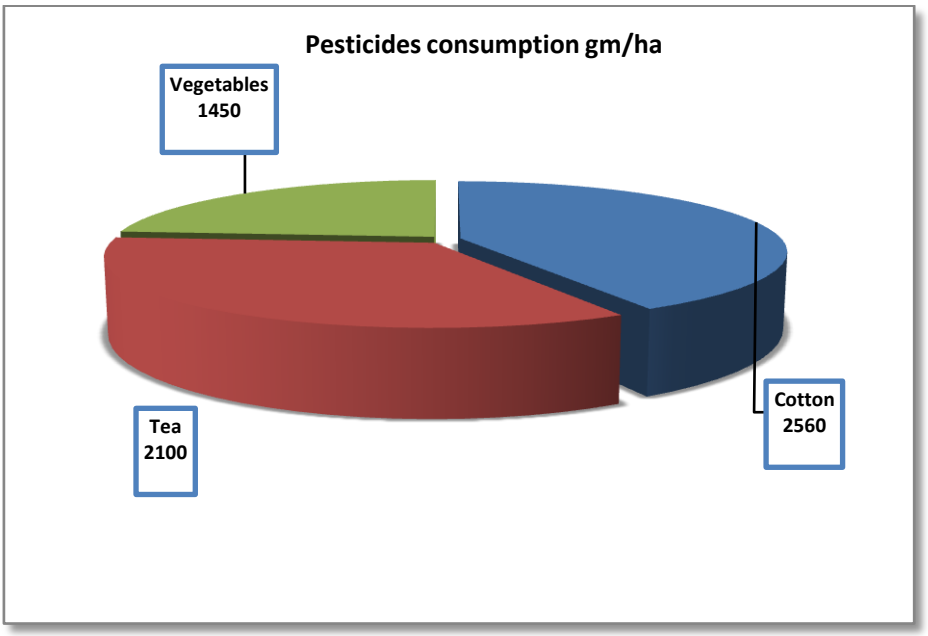
not realize the extent to which pesticides are poisonous and hazardous to human beings and environment. For instance, endosulphan is a broad spectrum insecticide and has been restricted in many countries as it is highly toxic to fish, but Nepalese farmers place pesticides into rivers and streams in order to catch fish (Sharma, 2011). Misuse of insecticides is common in Nepal. Unregistered and illegal products, open air sales, sales of banned products, cases of decanting and reweighing, fake pest control products using counterfeit labels, sales of expired products with modified expiry dates are among the misuse cases that have been reported in Nepal.

Table 3. Pesticide consumption in Nepal

S.N.	Commodity	Pesticides use (g.a.i/ha)
1	Cotton	2560
2	Tea	2100
3	Vegetables	1450
4	National average (Nepal)	142

Source : (Thapa, 1997)

Figure 3 : Pesticides Consumption (gm/ha) in Nepal



1.6 Pesticides Consumption scenario of different countries

By 2006, global pesticides sales reached to US $ 32.9 billion, and are expected to grow by 0.8% per annum (Agrow, 2007). Asia dominates the global market for agrochemicals accounting for 43.1% of global agrochemical revenue in 2008 (Agronews, 2009). China is the world's biggest user, producer and exporter of pesticides (Yang, 2007) and India is the second largest pesticide producer in Asia and ranks in the 12th position globally (WHO, 2009) with a value of US $ 0.6 billion, which is 1.6% of the global market. Also, India is the second largest user of pesticides after China in Asia (Shetty et al., 2010), where consumption of pesticides is 0.381 kg a.i./ha which is more than double as compared to Nepal (142 gm a.i./ha) but low as compared to the world average .

Table 4 .The consumption pattern of pesticides in different countries

Country	Pesticides use (a.i. kg/ha)
Japan	10.8
Europe	1.9
USA	1.5
India	0.381
Latin America	0.22
Oceania	0.20
Africa	0.13
Argentina	0.295
Indonesia	0.575
Thailand	1.367
Mexico	1.367
Rep. of Korea	**16.559**
Hungary	12.573
Italy	**13.355**
China	2.0-2.5
Nepal	0.142

Source : Arora et al., 2011

1.7 Date expired pesticides accumulated in Nepal

According to discussion in PRMD, About 75 ton of POPs and obsolete pesticides were being stored in 22 different places including Amlekhgunj, Nepalgunj and Khumaltar since three and a half decades. Due to lack of technical knowhow, funding, environmental impact assessment and continual social pressure, Government of Nepal was seeking help to dispose the stored pesticides. The Deutsche Gesellschaft für Technische Zusammenarbeit (GIZ) has recently completed their collection from Nepal and disposal in Germany.

Table 5 : Date expired pesticides accumulated in Nepal

SN	Pesticide group	Amount (mt)	% of total
1	Mixed (PoP and OC)	23.61	31.80
2	Organochlorine	10.48	14.02
3	POPs	10.05	13.54
4	OM	8.38	11.29
5	OP	7.95	10.72
6	Fungicides	4.45	5.99
7	Rodenticides	2.60	3.51
8	Fumigants	2.52	3.40
9	SP	1.86	2.52
10	Herbicides	1.84	2.48
11	CM	0.54	0.73
	Grand total	**74.25**	**100**

1.8 Banned pesticides in Nepal

Highly hazardous pesticides are banned and restricted to use in most of the countries. India has banned 28 pesticides and those do not include highly hazardous pesticides like monocrotophos, phosphamidon, phorate, lindane, mythyl parathion and endosulfan, whereas Nepal has banned the above pesticides below endosulfan. In Thailand, 84 pesticides have been banned since 1977 (http://thailand.ipm-info.org/pesticides/ pesticides-banned.htm) where as Nepal has banned only 14 pesticides till date

Table 6 : Banned pesticides in Nepal

S. N.	Name of pesticide	Category	Classification
1	Chlordane	POPs	OC
2	DDT	POPs	OC
3	Dieldrin	POPs	OC
4	Endrin	POPs	OC
5	Aldrin	POPs	OC
6	Heptachlor	POPs	OC

S. N.	Name of pesticide	Category	Classification
7	Toxafen	POPs	OC
8	Mirex	POPs	OC
9	Lindane	POPs	OC
10	BHC	POPs	OC
11	Phosphamidon	PIC	OP
12	Organo mercury fungicides	EMC, MEMC, PMA, PMC	Mercury
13	Methyl parathion	PIC	OP
14	Monocrotophos	PIC	OP
15	Endosulfan*	POPs	OC

Note : Deregisterd in 2069/7/20, grace period for sell and use till 2071/7/19. Source : PRMS 2014

Chapter 2: Pesticides Consumption record of Differenet District in Fiscal year 2070/71

2.1 Pesticides consumption record of Sindhuli District, Insecticides

S.N	(Common name)	(Trade name)	(A.I. %)	(Formulation)	kg/lit	
1	Dimethoate	ROGAR	30	EC		30
		ROGAR PLUS	30	EC		
		ROGRIN	30	EC		
		ROGOHIT	30	EC		
2	Dichlorovos	NUVAN	76	EC		82
		DOOM	76	EC		
		BLUM	76	EC		
		BLOOM	76	EC		
		KINGVAN	80	EC		
3	Alfamethrin	NAYAK	10	EC		11
4	Malathion	FINATHION	30	EC		18
		KC THION	50	DP	3500	
5	Endosulfan	ENDOSEL	35	EC		120
6	Emamectin Benzoate	KINGSTAR	5	SC	2.5	
7	Cypermethrin	SUPERKILLER	25	EC		120
		SUPERFIGHTER	25	EC		
		ASTAD	25	EC		
		SHAKTI	10	EC		
		ANUKIL	25	EC		
		JEEVAN REKHA	1	Chalk	0.5	
8	Chloropyriphos +	COMMAND 505	50+5	EC		225
	Cypermethrin	RHINO 505	50+5	EC		
		VIRAT	50+5	EC		
		NOORANI 505	50+5	EC		
9	Phorate	THIMATE	10	G	250	
10	Imidacloroprid	JOSH	70	WG	2	
11	Nitenpyram	KING GOURD	10	SL		0.5
12	Aluminium Phosphide	CELPHOS	56	Tab	3	
	Sub total				**3758**	**606.5**

Fungicide

S. N	Common Name	Trade name	(A.I. %)	Formulation	kg/lit	Remarks
1	Mancozeb	DITHANE-M 45	75	WP	2500	
		ENDOFIL-M 45	75	WP		
		UTHANE M – 45	75	WP		
2	Carbendazim	BEVISTIN	12	WP	900	
		KEVISTIN	12	WP		
3	Mancozeb +	KRILOXIL	64 +	WP	1200	

S. N	Common Name	Trade name	(A.I. %)	Formulation	kg/lit	Remarks
	Metalaxyl	GOLD	8			
		HIMIL	64 + 8	WP		
		KINGSINM 72	64 + 8	WP		
		KRILOXYL	64 + 8	WP		
4	Mancozeb + Carbendazim	SAAF	12 + 63	WP	1250	
		SIXER	12 + 63	WP		
		ALLSPARK	12 + 63	WP		
5	Mancozeb + Cymoxanil	KINGMIL 72	64 + 8	WP	145	
6	Copperoxychloride	CUREX-50	50	WP	275	
	Sub total				**6270**	

Bacteriacide

S.N	Common Name	Trade Name	A.I %	Formulation	kg/lit	
1	Streptomycin sulphate	AGRICIN	9+1	WP	8	
	Sub total				**8**	

Herbicide

S.N	Common Name	Trade Name	A.I %	Formulation	kg/lit	
1	Butachlor	HUNTER	50	EC	75	
		AAGNI	50	EC		
		MILCHLOR	50	EC		
2	Pretilachlor	RAZOR	50	EC	50	
		RACER	50	EC		
	Sub total				**125**	

Rodenticide

S.N	Common Name	Trade Name	A.I %	Formulation	kg/lit	Remarks
1	Zinc Phosphide	COMANDO	80	WP	170	
		RATOL				
2	Bromadiolone	KINGLONE	0.005	Bait	1	
	Sub total				**171**	

Botanicals

S.N	Common Name	Trade Name	A.I %	Formulation	kg/lit	
1	Azadiractin	NEEMIX	60	Liq.	70	
	Sub total				**70**	
hDdf					**10207**	**801.5**

2.2 Pesticides Consumption record of Dhanusa District

1. INSECTICIDES

S.N	TradeName	Common Name	A.I %	Formulation	Consumtion kg, lit	Remarks
1	Malthion	Malathion	50	EC	10000 lit.	
2	Rogar	Dmethoate	30	EC	2000 lit.	
3	Nuvan	Diciororos	76	EC	2105 lit.	
4	Bighter	Cypermethrin	10	EC	1008 lit.	
5	Lithal	Cloropyridhos	20	EC	70 lit.	
6	Rhino	Clorotcyeersoth	50	EC	50 lit.	
7	Nayak	Alfha cyper	10	EC	75 lit	
8	Super	Hit cyper	25	EC	80 lit.	
9	Furadon	Carbamats	3	G	5000 kg.	
10	Profit super	Funvolture	3	DP	2100 kg.	

2. FUNGICIDES

S.N	TradeName	Common Name	A.I %	Formulation	Consumtion kg	Remarks
1	Krinoxyl	Metaliman	8+64	WP	3000	
2	Saaf	Car+Man	12+63	WP	2000	
3	Bavistin	Carbendazim	50	WP	2300	
4	Ditham 45	Mancozeb	75	WP	1200	
5	Uthanem 45	Mancozeb	75	WP	1100	
6	Himal	Man+Mctr	64+8	WP	200	
7	**Total(kg)**				9800	

3.ACARICIDES

S.N	TradeName	Common Name	A.I %	Formulation	Consumtion kg, lit	Remarks
1	Kolonel	Dicofol		EC	50	

4. BACTERICIDES

S.N	TradeName	Common Name	A.I %	Formulation	Consumtion kg, lit	Remarks
1	Streptomil	Streptomil		WP	50	

6. Rodenticides

S.N	TradeName	Common Name	A.I %	Formulation	Consumtion kg, lit	Remarks
1	Comando	Zincphosphat		powder	10	
2	Hit			Bat	5	
3	Ratonil	Bromodplone	0.005	RB	5	

7. Molluscicide

S.N	TradeName	Common Name	A.I %	Formulation	Consumtion kg, lit	Remarks
1	Blitzem	Methaldyhod	50	PiLLete	20	

8.Biopesticides and botanicals

S.N	TradeName	Common Name	A.I %	Formulation	Total Consumtion kg, lit	Remarks
1	Sprsa	Psedomnos	50	WP	5	
2	NPY	Nuclear			5	

2.3 Pesticides consumption record of Ramechhap District

S.N.	Common Name	Trade Name	Unit	Total Quantity A.I. (Kg)
1	Dichlorovos	Nuvan 76ec	Lt.	26.4
		Doom 76ec	Lt.	19.6
		Devicol76ec	Lt.	4.94
		Bloom 76ec	Lt.	1.52
2	Chloropyriphos	Dersban 20ec	Lt.	10.2
3	Chloropyriphos+Cypermethrin	Lethal Super 20ec	Lt.	2.28

S.N.	Common Name	Trade Name	Unit	Total Quantity A.I. (Kg)
4	Malathion	Malathion	kg	220
		Malathion 5% Dust	kg	20.85
		Malathion	Lt.	30.5
5	Fenvolarate	Devidayal 20wp	kg	10
6	Carbofuran	Furadon 3g	kg	101.2
7	Dinocap	Kerathion	Lt.	158.3
8	Trichoderma viridae	Sanjeevani 1%	Lt.	0.3
9	Dimethoate	Rogar 30%Ec	Lt.	21.8
10	Carbendazim +Mancozeb	Kissan Suraksha	kg	6.8
11	Metalaxyal + mancozeb	Krinoxyl Gold	kg	3.06
12	Mancozeb	Dm 45	kg	30.5
		Indofil M45	kg	12.375
13	Carbendazim	Bevistin	kg	10.5
14	Copper oxychloride	Curex	kg	5.2
15	Cypermethrin	Super Killer 10ec	Lt.	10
		Fighter 10ec	Lt.	6.5
		Cypercid 10ec	Lt.	2.3
16	Alphamethrin	Nayak 10ec	Lt.	1
		Pharsa 10ec	Lt.	4.9
17	Deltamethrin	Decis 2.8ec	Lt.	5.5
		Shastra 2.8ec	Lt.	1.5
18	Casugamycin	Kasu B 3%Sl	Lt.	0.015

Rodenticides

1	Alluminium phosphide	Alphos 56%Tab	kg	1.75
		Celphos56% Tab	kg	20.5
2	Zinc Phosphide	Ratol	kg	5.5
		Zinc Phosphide	kg	2.76

Plant Growth Regulators

S.N.	Common Name	Trade Name	Unit	Total Quantity A.I. (Kg)
		Miraculan 0.05%	Lt.	2.8
		Hb 101	Pieces (5ml)	0.175
21	Tricontanol	Atonic	Pkts (10ml)	0.55

Micronutrients

S.N.	Common Name	Trade Name	Unit	Total Quantity A.I. (Kg)
22		Multiplex Liquid	Lt.	3.1
23		Multiplex Wp	kg	2
24		Amrit		2

Herbicide

		Anuclor	Lt.	10.1
25	Butachlor	Machet	Lt.	3.9

2.4 Pesticides consumption record of Sarlahi District

Insecticides

क्र.स.	विषादीको नाम	इकाई	कार्यालयबाट	एग्रोभेट बाट
१	रोगर ४० ई.सी.	लिटर	१५	१००
२	नुभान	लिटर	१९	१५०
३	थायोडन ३५ ई.सी.	लिटर	१२	३५
४	हिनोसान	लिटर	७	२५
५	मालाथियन ५० ई.सी.	लिटर	१५	१५०
६	मेटासिस्टक्स	लिटर	-	२५
७	साईपरमेथिन	लिटर	१५	१४०
८	रोगोरिन	लिटर	१७	१७०
९	अक्सिक्लोराइड	लिटर	-	१६०
१०	कैप्टन ५० WP	लिटर	५	७५
११	केराथियन	लिटर	६	८८
१२	फ्यूराडन ३ जी.	के.जी.	-	७५०

Fungicides

क्र.स.	विषादीको नाम	इकाई	कार्यालयबाट	एग्रोभेट बाट
१	डाइथेन एम. ४५	के.जी.	३०	३२०
२	सुर्या एम. ४५	के.जी.	१२	१५०
३	एम ४५	के.जी.	१२	१३०
४	व्लाइटक्स ५० ध्ए	के.जी.	५	१०५
५	वेभिष्टिन	के.जी.	३	३५
६	हिटालेक्सीन	के.जी.	-	३०
७	साफ	के.जी.	१०	१६०
८	सफाया	के.जी.	८	१२०
९	यूथन एम. ४५	के.जी.	१०	७००
१०	कार्वेन्डाजिन + मेन्कोजेव	के.जी.	२०	८००

2.5 Pesticides consumption record of Mohottari

किटनाशक

- डाईक्लोरोभस
- साईपरमेथ्रिन
- डाईमेथोएट

ढसीनासक

- मेन्कोजेव
- कोर्वेन्डाजिम
- मेटालेक्जिल
- सल्फर

2.6 Pesticide Consumption Record of Dolakha District

Insecticides

S.No	Common name	Trade name	Unit	Quantity	Remarks
1	Dimethoate 50% EC	Rogarin,Tafgor,Rogor, 6\ofkm	Litre	1033	
2	Chloropyriphos 20% EC	Kaman, Dursban, Kichlori	Litre	1152	
3	Cypermethrin 10% EC	Anumite, Maharin, Cyperhit, Aujaar, Superkill, Muvan, Bloom	Litre	3168.1	
4	Chloropyrifus 50% EC + Cypermethrin 5% EC	Super D, Ki-top, Action 505	Litre	764	
5	Malathion 5% Dust	Malathion, Devimalt,	KG	35.6	

S.No	Common name	Trade name	Unit	Quantity	Remarks
		Suryathion, Althioan, Malapower Gold			
6	Alphamethrin 10% EC	Jem	Litre	411.05	
7	Dichlorovus 76% EC	D.D.V.P., Nuvan, Kingvan	Litre	23.2	
8	Carbofuran 3% CG	Plantfuran	KG	62.01	
9	Endosulfan 35% EC	Indone, Indasil, Thiodan	Litre	55.7	
10	Phorate 10% CG	Vitax, Phorate	KG	1.01	
11	Triazophos	Josh	Litre	1.1	
12	Deltamethrin	Desis	Litre	0	
13	Alminium Phosphate	Celphus	KG	4	
Total				**6710.77**	

Fungicides

S.N.	Common name	Trade name	Unit	Quantity	Remarks
1	Metalyxal 8% + Mancozeb 63% WP	Krinoxyl Gold, Krylaxyl Gold	KG	58.7	
2	Carbendazim 50% WP	Bevistin, Kibestin	KG	89.2	
3	Mancozeb	Dithane M 45, Rhino M 45, Indofil M 45, Kisan M 45	KG	173	
4	Copperoxychloride	Curex, Raze, Blitox 50	KG	58.5	
5	Dinocap 48% EC	Karathane	Litre	1.9	
6	Thiophonate Methyl	Achuk	KG	2	
7	Carbendazim 12% + Mancozeb 63%	Saaf, Allclear	KG	7	
Total				**390.3**	

Bactericides

S.No.	Common name	Trade name	Unit	Quantity	Remarks
1	Bacterimycin		Litre	1	
Total				**1**	

Herbicides

S.No.	Common name	Trade name	Unit	Quantity	Remarks
1	Butachlore	Machet	Litre	615	for the rice weed management
Total				**615**	

Rodenticides

S.No.	Common name	Trade name	Unit	Quantity	Remarks
1	Zinc Phosphide	Ratil	KG	9.1	
2		Liso	KG	42.4	
Total				51.5	

2.7 Pesticides consumption of Bhaktapur District

Insecticides

S.N	Common Name	Trade Name	Unit(kg or lit)	Total Quantity
1	Cypermethrin	Fighter,superfighter,devicyper	Kg/ltr	250
2	Dichlorovos	Nuvan,sevin,doom,devicol	Kg/ltr	380
3	Dimethoate	Roger	Kg/ltr	92
4	Malathion	Malathion	Kg/ltr	300
5	Emamectin Benzoate	Kingstar	Kg/ltr	80
6	Imida chloropid	Looper,imida, loper, simida	Kg/ltr	47

Fungicides

S.N	Common Name	Trade Name	Unit(kg or lit)	Total Quantity
1	Carbendazim	Derosal,dhanustin	Kg/ltr	600
2	Mancozeb	Indomfil45, devim45, dithanem 45, Allm 45 Sectin	kg	1200
3	Copper oxychloride	Anucup 50% wp,allcup50, Dhanucop	kg	500
4	Metalaxyl+Mancozeb	Kirnoxylgold,allkirnoxylgold	kg	300
5	Validamycin, Kasugamycin	Tag MARKASU-B, KI-MYCN	Kg/ltr	20
6	Flusuphamide	Nebijin	kg	30 kg
7	Tricyclazole, Hexaconajol	Trikaal	Kg/ltr	150

Rodenticides

S.n	Common name	Trade name	Unit(kg or lit)	Total quantity
1	Zinc phosphide	Commando,rataol,ratil	Kg/ltr	60

Herbicides

S.N	Common Name	Trade Name	Unit(kg or lit)	Total Quantity
1	Buttachlor		kg	75
2	24 D		Kg	58

Biopesticides

S.N	Common name	Trade name	Unit(kg or lit)	Total quantity
1	Azadirachtin	Nimbicidin, nico neem,multineem, margosom	Ltr	30
2	Pseudomonas flurescense	Bio-cure	Kg/ltr	30
3	Trichoderma virid mae	Bio-power, nisarga,biocide trivi	Kg	70
4	Metarhizium anisopliae	Biocide- manic	Kg	35

2.8 Pesticide Consumption Record in Dhading District

Insecticides

Common name	A.I.%	Trade names	Quantity kg/lit
Endosulfan	35 EC	Endocel, Thiokill, Thiodan, Endodhan, Nagsulfan, Trasco superkill, Endohit etc.	575.0
Cypermethrin	10EC	Anumite, Dianomite, Ustaad, Bilsip, Krysip, Cyperhit, Superkiller, Fighter, Dianomite, Cyperin, Ki cyper, etc.	3800.0
Alphamethrin	10EC	Stop, Forward, Farsa, Alphadhan, etc.	131.0
Methyl Parathion	50EC	Metacid, Sabidol etc	44.0
Dimethoate	35EC	Nugor, Rogor, Rogohit, Rogoplus, Rogorin etc.	255.0
Quinalphos	25EC	Kinalux, Nagin etc	12.0
Deltamethrin	2.8EC	Desis	62.0
Monocrotophos	36 SL	Rasayanphos, Phoskill, Nagphos, Monohit, Bilphos, Monodhan	41.0
Malathion	50EC	Malathion remedy, Cythion, Malathion, Malataf etc	30.0
Profenphos			39.0

Common name	A.I.%	Trade names	Quantity kg/lit
Dichlorvos	76 SL	Doom, Nuvan, Dichlorvos, Bloom etc.	295.0
Chloropyriphos	20EC	Nagpyriphos, Dhanban, Radar, Tricell, Bardan, Durmet etc.	60.0
Triazophos	40EC	Josh, Tarjan, Ghatak etc.	169.0
Imidachlorpid	17.8 SL	Durbar, Imidagold, Rasayan gold, Josh, etc.	35.0
Fenvelrate	20 EC	Fenkill, Anufen, Trumpcard, Nagfen, etc.	123.0
Sutathion			10.0
Ethion	50EC	Nagethion, Trasco superkill	65.0
Chloropyriphos+ Cypermethrin	50+5 EC	Nurelle D, Super D, Nurani, Missile, Lanset etc.	345.0
Triazophos+Delta methrin	35+1 EC	Spark	30.0
Others			350.0

Fungicides (kg/L

Common name	a.i.	Trade name	Quantity
Hexaconazol	5SL	Krizol, Titan	12.0
Metalaxyl	35 WP	Himil gold	18.0
Metalaxyl+Mancozeb	8+64 WP	Krinoxyl gold, Kriloxyl, Krilaxyl, Himil, Master, Matko, etc	1285.0
Carbendazim+ Mancozeb	12+63 WP	Safaya, Safal, Companion, Sixer, Saaf, etc	142.0
Mancozeb	75 WP	Indofil M 45, Dithane M 45, Rhino, Anu M 45, Plant M 45, Sparsh M 45, Super manco M 45, etc.	3410.0
Carbendazim	50 WP	Bavistin, Navistin, Ki-vistin, Dhanustin, Dhanustin, Derosal, Arrest, Superstin	176.0
Copperoxychloride	50 WP	Curex, Blitox, Sutox, Anutox, Anucop,	168.0
Sulphur	80 WP	Sulfex, Arisulf, Sulpha plus, etc	240.0
Sulphur	40 SC	Share	11.0
Others			445.0
Total			**5907.0**

Antibiotics

Common name	Quantity
Kasugamycin (Kasu B)	3.0
Streptomycine sulfate + Tetracycline hydrochloride	2.0

2.9 Pesticides Consumption record of Nuwakot District

Insecticides

क्र.स.	सामान्य नाम	ब्यापारीक नाम	बार्षिक खपत	एकाई
१	क्लोरोपाइरीफस साईपरमेथ्रिन	किटप	२२	लिटर
२	क्लोरोपाइरीफस साईपरमेथ्रिन	सुर्य नुरेली	४५२	लिटर
३	क्लोरोपाइरीफस साईपरमेथ्रिन	बेन्सीफ	४६	लिटर
५	क्लोरोपाइरीफस साईपरमेथ्रिन	कमान्डो	३५	लिटर
६	क्लोरोपाइरीफस साईपरमेथ्रिन	आन्थ	३५	लिटर
७	क्लोरोपाइरीफस साईपरमेथ्रिन	जुडुवा	८८	लिटर
८	क्लोरोपाइरीफस साईपरमेथ्रिन	कार्वाइन	९६	लिटर
९	क्लोरोपाइरीफस	धनवान	३१५	लिटर
१०	साईपरमेथ्रिन	सुपर क्लिन	२५०४	लिटर
११	साईपरमेथ्रिन	फाइटर	८००	लिटर
१२	साईपरमेथ्रिन	उस्ताद	४००	लिटर
१३	साईपरमेथ्रिन	सुर्यमेथ्रिन	८०	लिटर
१४	डेल्टामेथ्रिन ट्रइएजोफस	एम्मो	९०	लिटर
१५	ट्रइएजोफस	करेन्ट	३४	लिटर
१६	ट्रइएजोफस	जोस	१०७	लिटर
१७	ट्रइएजोफस	टर्वो	१७५०	लिटर
१८	इन्डोसल्फान	थयोडान	१७००	लिटर
१९	डाईमेथोएट	रोगर	३८००	लिटर
२०	अल्फामेथ्रिन	अल्फा प्लस	१३००	लिटर
२१	अल्फामेथ्रिन	क्लिक	३५	लिटर
२२	अल्फामेथ्रिन	एक्सिस	३००	लिटर
२३	कार्वोफ्युरान	फ्युराडोन	८५०	किलो ग्राम
२४	कार्टाप हाइड्रोक्लोराइड	सुर्या रोयल गोल्ड	१२	किलो ग्राम

क्र.स.	सामान्य नाम	ब्यापारीक नाम	बार्षिक खपत	एकाई
२५	डाइक्लोरोभस	नुभान	३५००	लिटर
२६	डाइक्लोरोभस	अल्भान	१५	लिटर
२७	डाइक्लोरोभस	डुम	८०	लिटर
२८	एसिटाप्रिमिड	सुर्याप्रिमिड	८००	लिटर
२९	ईमिडाक्लोरोपिड	एडमाएर	४००	लिटर
३०	ईमिडाक्लोरोपिड	अनुमिडा	३००	लिटर
३१	मालाथिन	मालाथिन	१२००	किलो ग्राम
३२	फेन्भलरेट	किफेन	३५०	लिटर
३३	फ्लुवेन्डियामाईड	फेम	४५	लिटर
३४	एसिफेड	लेन्सर गोल्ड	२	किलो ग्राम
३५	एलुमिनियम फोस्फाइड	सेल्फोस	६०००	चक्कि

Fungicides

क्र.स.	सामान्य नाम	ब्यापारीक नाम	बार्षिक खपत	एकाई
१	मेन्कोजेव	डि.एम. ४५	४१५४	किलो ग्राम
२	मेन्कोजेव	इन्डोफिल	१६१४	किलो ग्राम
३	मेन्कोजेव	वेल्जीप	२५३७	किलो ग्राम
४	एन्ट्राकोल	प्रोपियोनेव	२५१२	किलो ग्राम
५	मेटालाक्जाएल मेन्कोजेव	अनु मिल एम ७२	१०४	किलो ग्राम
६	मेटालाक्जाएल मेन्कोजेव	किगंमिल एम जेड	२२५	किलो ग्राम
७	मेटालाक्जाएल मेन्कोजेव	क्रिलाक्जाएल	२३०	किलो ग्राम
८	मेन्कोजेव कार्वान्डाजिम	साफ	५६५	किलो ग्राम
९	मेन्कोजेव कार्वान्डाजिम	किसान सुरक्षा	२२५	किलो ग्राम
१०	मेन्कोजेव कार्वान्डाजिम	सुर्य सेफ	२९	किलो ग्राम
११	कार्वान्डाजिम	के भिस्टीन	४२१	किलो ग्राम
१२	कार्वान्डाजिम	बेभिस्टीन	३४९	किलो ग्राम
१३	कार्वान्डाजिम	अनुस्टिन	२४३	किलो ग्राम
१४	क्लोरोइथानोल	जटायु	११	किलो ग्राम
१५	फेनामेडोन मेन्कोजेव	सेक्टिन	५७	किलो ग्राम
१६	हेक्जाकोनाजोल	सितारा	५१	किलो ग्राम
१७	हेक्जाकोनाजोल	टाईटन	८९	लिटर
१८	कपर अक्सिक्लोराइड	धनुकव	३६	किलो ग्राम
१९	कपर अक्सिक्लोराइड	सुर्य कपर	४३	किलो ग्राम
२०	कपर अक्सिक्लोराइड	ब्लाईटक्स	४९	किलो ग्राम

Bactericides

क्र.स.	सामान्य नाम	ब्यापारीक नाम	बार्षिक खपत	एकाई
१	स्ट्रेप्टोमाईसिन	स्ट्रेप्टोमाईसिन	८	किलो ग्राम
२	टेट्रासाईक्लिन	टेट्रासाईक्लिन	८६.५	किलो ग्राम
३	भेलिडामाईसिन	भिआईपि	८९	लिटर

Rodenticides

क्र.स.	ब्यापारीक नाम	सामान्य नाम	बार्षिक खपत	एकाई
१	राटोल	जिकं फोस्फाईड	१३०	किलो ग्राम
२	राटील	जिकं फोस्फाईड	५८	किलो ग्राम

Herbicides

क्र.स.	सामान्य नाम	ब्यापारीक नाम	बार्षिक खपत	एकाई
१	अक्जाडाएरगील	टप स्टार	४१	किलो ग्राम
२	ब्युटाक्लोर	हन्टर	२५२	लिटर
३	ब्युटाक्लोर	अलक्लोर	१२०१	किलो ग्राम
४	पेन्डामिथालिन	स्टप	८२	लिटर
५	पाईराजोसल्फोरोन ईथाईल	साथी	२३	किलो ग्राम

2.10 Pesticides Consumption records of Rasuwa District

Insecticides

S.N	Common Name	Trade name	Unit	Total quqntity
1	Cypermethrin (25 EC)	Superkiller	L	53
2	Dimethoate (25 EC)	Rogar	L	8.5
3	chlorpyriphous (4%)	Ki-choloro	L	60
4	Malathion (50%)	Sythiyan	L	12
5	Alminum Phosphide	Selphos, Quicphos	Tube	220
6	Zincphosphide	Zincphosphide, Rat Killer	Packet	450
7	Chlorpyriphous (50%) + Cypermethrin (5%)	Suryanurel , Kitop,	L	13
8	Emidachloropred	Suryameda gold, Perimeda	L	1.5

Fungicides

S.N	Common Name	Trade name	Unit	Total quqntity
9	Mencozeb 45	Kishan M 45, Uth M 45, Devidayal M-45	Kg	650

S.N	Common Name	Trade name	Unit	Total quqntity
10	Carbendazim 50	Bevistin, Ki Bevistine, Dhanustin	Kg	32
11	Metalaxyl +Mencozeb	Kriloxil Gold, Syloxil Gold	Kg	220
12	Copper oxychloride	Curex 50, Devi Copper, Surya Copper	Kg	12
13	Carbendazim (12 %)+ Mencozeb (63%)	Saf, safal 75%	Kg	18
	Total powder		KG	932

बिषादी खुद्रा बिक्रेता र खपतको स्थितीः

प्राय बिषादी नुवाकोट र काठमाण्डौबाट खरीद गरिएको पाइन्छ । अतः जिल्ला स्थित बिषादी खुद्रा बिक्रेताबाट हुने बिषादीको कारोबार परिमाण न्युन रहेको छ । उतरी क्षेत्रमा एग्रो भेट छैनन कार्यालयमा आउने सेवा ग्राहीले प्रायः बिउ र बिषादी माग गर्छन । ११ जनाले बिषादी खुद्रा बिक्रेता लाइसेन्स लिएता पनि हाल सम्म जम्मा बिषेशतः भेटेनरीमा आधारीत ९ वटा एग्रो भेट धुन्चे, धैबुग र बेत्रावती गा.वि स मा संचालीत छन् ।

2.11 Pesticides consumption record Sindhupalchwok

SN	Common name	Trade name	Unit (kg or Lit)	Total Quantity a.i. (kg)	Remarks
1	Dimethoate	Rogorin	13 lit	30%Ec	
		Devigon	10 lit	30%Ec	
2	Cypermethrin	Devicyper	11 lit.	10%Ec	
		Superkiller	6 lit.	25%Ec	
3	Dichlorvos	Nuvan	12 lit.	76%Ec	
		Revan	8 lit.	76%Ec	
		DeviKol	5 lit.	76%Ec	
		Doom	7 lit.	76%Ec	
4	Chlorpyrifos	Durshan	15 lit.	20%Ec	
5	Malathion	Malathion	12 lit.	50%Ec	
6	Phorat	Phorat	250 kg	10%G	

Fungicides

SN	Common name	Trade name	Unit (kg or Lit)	Total Quantity a.i. (kg)	Remarks
1	Carbendazim	Bevistin	4o kg	50%WP	
		Ki-bestin	10 kg	50%WP	
2	Mancozeb	All M-45	45 kg	75%WP	
	Mancozeb	Kisan M-45	35 kg	75%WP	
	Mancozeb	Uthen M-45	20 kg	75%WP	
3	Metalaxy8%+Mancozeb 64%	Krinoxyl Gold	6 kg	72%WP	
	Metalaxy8%+Mancozeb 64%	All kraloxyl	8 kg	72%WP	

Rodenticides

SN	Common name	Trade name	Unit (kg or Lit)	Total Quantity a.i. (kg)	Remarks
1	Zinc phosphide	Ratil	8 kg	80%WP	

Bio-pesticides, Botanical, Bio-agent

1	Azadirachtin	Nimbecidine	3 lit.	0.03% Ec	

2.12 Pesticides consumption record of Lalitpur District

Insecticides

क्र. स	सामान्य नाम	व्यापारिक नाम	वार्षिक खपत	ईकाइ	कैफियत
१	क्लोरिपाइरिफस ंसाइपरमेथ्रिन	कि-टप	५	लि	
२	क्लोरिपाइरिफस ंसाइपरमेथ्रिन	सुर्यनुरेली	३१०	लि	
३	क्लोरिपाइरिफस ंसाइपरमेथ्रिन	वेन्सीफ	१५	लि	
४	क्लोरिपाइरिफस ंसाइपरमेथ्रिन	कमान्डो	१५	लि	
५	क्लोरिपाइरिफस ंसाइपरमेथ्रिन	कार्वाइन	१५	लि	
६	क्लोरिपाइरिफस ंसाइपरमेथ्रिन	जुडुवा	५	लि	
७	डेल्टामेथ्रिन र ट्राईएजोफस	एम्मो	५	लि	
८	क्लोरिपाइरिफस	धनवान	११७	लि	
९	डेल्टामेथ्रिन	डेसिस	३३६४	लि	

क्र. स	सामान्य नाम	व्यापारिक नाम	वषिक खपत	ईकाइ	कैफियत
१०	इन्डोसल्फान	थयोडिन	३०१०	लि	
११	ट्राइएजोफस	करेन्ट	५	लि	
१२	ट्राइएजोफस	जोस	७१	लि	
१३	ट्राइएजोफस	टर्बो	१२०	लि	
१४	डाईमेथोवट	रोगर	१५०	लि	
१५	साईपरमेथिन	सुपरकिलर	१५००	लि	
१६	साईपरमेथिन	फाईटर	५०	लि	
१७	साईपरमेथिन	सुर्यमेथिन	२५	लि	
१८	कार्बोफ्युरन	फ्युराडन	९००	कि.ग्रा	
१९	मालाथियन	मालाथियन	३५०	कि.ग्रा	
२०	क्लोर्टाबहाईड्रोक्लोरईड	सुर्यारोयल गोल्ड	५००	कि.ग्रा	
२१	डाईक्लोरोभस	नुभान	१००	लि	
२२	डाईक्लोरोभस	अल्भान	२०	लि	
२३	डाईक्लोरोभस	डुम	१०	लि	

Fungicides

क्र. स	सामान्य नाम	व्यापारिक नाम	वषिक खपत	ईकाइ	कैफियत
१	मेन्कोजेव	डि एम ४५	३२४०	कि ग्रा	
२	मेन्कोजेव	इन्डोफिल	१४९५	कि ग्रा	
३	मेन्कोजेव	वेल्जीप	२२६०	कि ग्रा	
४	एन्ट्राकोल	प्रोपियोनेव	२११०	कि ग्र	
५	मेटालाक्जिल र मेन्कोजेव	अनु मिल एम ७२	७५	कि ग्र	
६	मेटालाक्जिल र मेन्कोजेव	किङ्गमिल एम जेड	१६७	कि ग्र	

Rodenticides

क्र.स	सामान्य नाम	ब्यापारिक नाम	बार्षिक खपत	ईकाई	कैफियत
१	रोटल र राटील	जिंक फस्फाईड	१००	के जी	

Herbicides

क्र.स	सामान्य नाम	ब्यापारीक नाम	बार्षिक खपत	ईकाई	कैफियत
१	बुटाक्लोर	हन्टर	२००	लि	
२	बुटाक्लोर	अलक्लोर	१००	लि	
३	पेन्डामिथालिन	स्टप	५०	लि	

Bactericides

क्र. सं	सामान्य नाम	ब्यापारीक नाम	बर्षिक खपत	ईकाई	कैफियत
१	स्टेप्टोमाईसिन	स्टेप्टोमाईसिन	१०	कि ग्रा	
२	टेत्रासाईक्लिन	टेत्रासाईक्लिन	५०	किग्रा	

2.13 Pesticide consumption of Kavre District

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
1	Chlorpyrifos	ALL SBAN, BANN, CATCH, CHLOROKING, CLASSIC 20, CLEAROUT, CYPHOS, DEVIBAN, DHANUSHBAN, DHANVAN, DURMET, DURSBAN, FINEBIN, HINDUSTANVARDAN, KI-CHLORO, KRISHAN, LETHAL, MOLBAN, MOLBAN, NAGPYRIPHOS, PREDATOR, PREMAIN, PRIZEM, RADAR, RUSBAN, SICOBAN, SULBAN, SUYRAPHOS, TERMISEAL, TERMITE-X, TRICEL	Litre	EC	1500.00
2	Chloropyriphos + Cypermethrin	BANNMARCH, ANUBAN, BULLET, C2 GOLD, LANCET, ACTION 505, ALL FIGHTER, AVER TOP, BANCYP 505, BILBO 505, BILDO, BOWLED 505, CARBINE, CYKLON, DELFIN, DOUBLE STAR, FIGHTER 5050, JUDWAA, JWALA, K-2, KI-TOP, KORANDA, LANCET 505, LARA, LETHAL SUPER, MEGA 505, NOORANI, NURELLED 505, NURCO MBI, RHINO 505, ROCKET, SATSFY, SPINE, STAMPEDE, SUPPER CYCLONO, SURYA NURELLE, TERMINATOR 505, TERRORRL, COMMAND 505, LANCHER	Litre	EC	4168.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
3	Mencozeb 75% AND 80%	AGRITHANE M - 45,ABIC M 45, ACMZEB M 45, ANU M45, AVER M45, BHARAT M 45, BILZEB, CRYSTAL M 45, DEFENDER, DHANUKA M 45, EUROFIL NT, HINDUSTAN M 45, KISAN M 45, K -M 45, LEO M 45, LUZIM 45, MAHAZEB 45, MAKA M 45, MANCO M 80, MANCOBAN, , MANCOSTOR M 45, MANFIL, MANFIL WG, MANZIB, MARLETT, MATCH M 45, MOLTHANE M 45, MOUNT M 45, MZ 45, PLANT M 45, REAL M 45, RM 45, ROHAN - M 45, SCOT M 45, SHREEM 45, SPAN 45, STATGEM 45, SURYA M 45, TATA M 45, UTHANE M 45, ZINETHANE - M 45, ALL-M 45, GREEN THANE, INDOFIL M - 45, RHINO M 75, MENCOZIDE, MANCOZIDE	kg	WP	40210.00
4	Fenamidon10% + Mancozeb 50%	SECTIN -60 , KI TEN	Kg	WG, WP	100.00
5	Mancozeb 46.5% + Cymoxanil 4%	CURTINE-V	Kg	WP	300.00
6	Carbendazim 12% + Mancozeb 63%	ACER, ACMECURE, ALL CLEAR, ALL SPARK, AMBUJA, CM 75, COMPANION, COVART, CYCLONE, EXTRA COVER, GOMEDA, KAPENI, KISAN SURKSHA, ,MANCOBAN-C, RATAN, REVIVE 750, SAAF, SAATH, SAFAL, SAFAYA, SAFE, SAFF, SAFRON, SENIOR, SIXER, STUFF, SURE, SURYA SAFF, SPFRINT, CARE	Kg	WP	2425.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
7	Carbandazim	ALL STIN, ANUSTIN, ARREST, BATISTA, BAVISTIN, BENFIL, BILLIUM, C-BESTIN, CARBEN, CARBESTIN 51, CARZIM, CURATOR, DEROSAL, DEVISTIN, SHANUSTIN, FUNGISTIN, GREEN STIN, HITASTIN, K- VISTIN, KI BESTIN, MAHASTIN, MOLSTIN, NAVISTIN GOLD, RUSTONE 50, STARBENZE, SURYAZIM, TAGISTIN	Kg	WP	3864.00
8	Metalaxyl 4% +Mancozeb 64%	RIDOMIL GOLD, ACMECONTROL, ALL CRILOXYL, ANUMILL-M72, AVER GREEN, CRSTOMYL, HIMIL, HITALAXYL, K-LAXYL, KRILAXYL-MZ72, KRILOXIL, KRINOXYL GOLD, MAGNET, MASTER, MATCO-8-64, METALMAN, METAMEN, MIXOL-72, RADONOL, RADOSTAR 72, REALMAX, RELAXIN 72%WP, RELAXYL, RIDOMIL MZ- 72, SAILAXYL MZ 72, SOGAT, SPECTRA, SUGAAT, SURYALAXYL GOLD MZ-72, SYSCON, TAGMIL, UNILAX, VACOMIL MZ -72	Kg	WP	7265.00
9	Metalaxyl 35%	SUPPER CYCLONO, SUYRA NURELLE, TERMINATOR-505, TERRORRL, COMMANDO 505, LANCHER, SPINE, STAMPEDE	Kg	WP	984.00
10	Triazophos 35%+Deltamethrin 1%	TRIAZO-PLUS ULFA, ALLMO, AMMO, JADU, KI-DT, MOVE, PARKER, SARPANCH, SPARK, SURYA MOVE, TIGER, TRIDELTA, MOVE	Litre	EC	150.00
11	Triazophos	LARVIN, ALL TRIZO, BLUDOZER, BRAVO, GHATAK, HATTRICL 40, JOSH, KI TIGER, SUTATHION, TARBO, TARZAN,	Litre	EC	157.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
		TITAN, TRIAZOPHOS, TRIAZOSTAR, TRIFLUR, TRIFOS			
12	Herbicide	2,4,D SODIUM SALT, CLODINAFOP PROPARGYL, AMMONIUM SALT OF GLYPHOSATE, BISPYBAC SODIUM, BUTACHLOR, 2,4,D ETHYL EASTER, GLYPHOSATE, METRIBUZIM, METSULFURON METHYL, OXDIARGYL, OXYFLUORFEN, PARAQUAT DICHLORIDE, PENDIMETHALIN, PRETILACHLOR, PROPAQUIZAFOP, PVRAZOSULFURON EHTYL,	Kg		1524.40
13	Dichlorvos	AGRICHLOR, ALLVAN, ANUDDVP, AVERVAN, BADAL-76, BLOOM, COACH, COBRA, CROVEP, DANIS, DECENT, DEMAND, DEVIKOL, DIVAP-100, DOOM, FUME, GREEN DON, KI-DDVP, KING VAN, LUVON, MOLAVAN, MUVAN, NEVAN GOLD, NEWVAN, R-DICHLOR, REVAN, RIVAN, RUSCRON, SICOVAN, STARCHLOR, SUCHLOR, SURYA OOM PLUS, UVAN,VISTA	Litre		5731.50
14	Cypermethrin	ACMETHRIN -10, ALL KILLER, ALL SUPER, NUKILL, ANUMITE, BARRIER CX, CHALLENGER, CHALLENGER, CYMBUS, CYPER PLUS, CYPERCID- 25, CYPERCID-10, CYPERHIT, CYPERHIT, CYPERIN, CYPHOS, CYRUX,DELTA COAT, DEVICYPER- 10, FIGHTER,GOOGLY 10,GOOGLY 25, GREEN CYPER	litre		2358.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
15	Cypermehrin+ Chlopyriphos	HEXAKILL, HIPOWER, JACKPOT-25, K- CYPRIN, K-CYPERIN, KI-CYPER,KI-CYPER, KRICYP- 10, KRICYP- 25, LACER, LAXMANREKHA, MAHARIN - 10, MOLTHRIN -10, MOLTHRIN -25, MORTAL 25, NAGCYPER, NAGCYPER, PUNIX- 10, PUNIX-25, IPCORD, SARDAR, SHAKTI-10, SHAKTI- 25, SICORIN - 25, SICORIN- 10, STARK - 25, STARK- 10,SUPER KILLER- 10, SUPER KILLER -25,SUPER CYPER , SUPER CYPERIN -10, SUPER CYPERIN -25, SUPER FIGHTER, SUPER FIGHTER, SUPERHIT 10, SURYAMETHRIN, SURYAMETHRIN, TATA CYPER 25, TWO- ESTER, STAAD	Litre		130.00
16	Sticker		Litre		539.00
17	Organic pesticide		Litre		328.70
18	Tiacontanol 5 EC		Litre		15.00
19	Hexaconazole	ALLZOLE, AVON, COMFORT, COMFORT PLUS, CONTAF PLUS, CRYZOLE, DANZOLE, HAXAMAX, HEKSA, HEXA PLUS, HEXACON, HEXAHIT, HITAHIT, KI-HEXA, KRIZOLE, LIFECARE, MANIX, NAGZOLE, NECTOR, SAMADHAN PLUS, SICOTAF, SITARA, SURYA HEXAGOLD, SYSFIX, TITAN, TURNS, UDAAN, UDAN PLUS	Kg		10.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
20	imidaclropid	CHEMIDA PLUS, A-ONE, ADMIRE, ADMIRE, ADMIT, ALLMIDA, ANUMIDA, ANUMIDA, ATOM, ATOM PLUS, BILDOR, CHAMPION, CHEMIDA, COHIGAN, COFIDOR, DAWN 2000, FIRE, GUARD, HI-IMIDA, HIMIDA, IMIDANAG, IMIDASTAR, IMIDATE, IMIVAX GOLD, JOMBO, JOSH, KI-IMIMDA, KI- IMIMDA, KILLSPOT, LOOPER, MAXFORCE-IC, MEDAS 2000, MOLDOR+200SL, NAGMIDA, PACTUS, PERRYMIDA, PESTSEAL GEL, POLAR, POLARD, PREMISE SC, PRIMA, CONFIDENCE 555, SENSEX, SENSEX 2000, SIMIDA, SURYA COUNTER PLUS, SURYA MID GOLD, TATAMIDA, TERMISE, TEZ, TROPICAL MAGIK, TROPICAL MAGIK 70, VICTOR, YORKER	litre		386.70
21	Acitamiprid	ACTION, BISMARK, EKKA, MANIK,MOLPRID,NIZE,POUND,PRIME,SHARP,SURYAMIPRID	Litre		148.00
22	Malathion	ALLMALA, ALLTHION, ANU, MALATHION. CYTHION, GREENMALA, KI-THION, MALATHION DUST, MALATHION REMEDY. MALATHION REMEDY, MARE DUST, MAYTHION, MILTHION, MOLRAKHSHA, SICOTHION, SURYATHION	Litre		2056.00
23	Copper oxychoride 50 wp	ALL COP, ANUCOP, BLITOX-50, BLUE BULL, BLUCOPPER, CHEMZOLE, CUREX, DEVICOPPER, DHANUCOP, HI COPPER, KI- COP, MANCOP, NAGCOPPER, SURYA COPPER,	Kg	WP	300.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
		TRUCOP			
24	Antracol		Kg		70.00
25	Dimethooate	ALLROGOR, ANUGOR, GREEN GOR 30, KI - ROGOR, MAHAGOR, ROGO HIT, ROGO RICH, ROGOR, ROGOR GOLD, ROGOR PLUS, ROGORIN, ROGORUS, SURYA ROGOR, TAFGOR, TARA 909, TEJA, OSHIN	Litre		213.00
26	Metiram 70%	Metiram	Kg	WP	350.00
27	Novaluran 10%	PEDESTAL,RIMON	Litre	EC	72.00
28	Emamectin benzoate5%, 2%, 5%, 5.7%	AVER KILLER, CHEMDOOT, EMAVAP, KING STAR, MISSILE, N- STAR, PROCLAIM- 5 ,REAL STAR	Kg /litre	WDG, SG, EC	5.00
29	Deltramethrin	ALL DEL, DECIS, DECIS 100, DELCLIDE, DELRIN KING, DELTA CARE, DICE, D THRINE, EXPRESS, K-FLY, K-OTHRIN FLOW,K-OTHRIN WG 250, KINGFOG, KI SIX, PALI 2.5, PYROFOG 125, RAPIER, SAVIER, SHASTRA, SURYACIS, VANNIS, ZANGEER	Litre		205.00
30	Deltramethrin+triazophos	DELTA		EC	255.00
31	Lambdacyhalothrin	LAMBDEX SUPER, AGENT PLUS, AVON, BRAVO- 5000, CILVA PLUS, CYRUN - 25, FARRATE, KARATE, KATAR, LAMBDASTAR, LAMBDMOL, LAMBDAX, MARATHON., REVENGE, SURYA AGENT+, TAG COMMAND, TRIKON	Kg /litre		20.00
32	Profenofos 40%+ Cypermethrin 4%	PROFIGAN PLUS, BANJOSUPER, COMBRICON, CORSA- 808, CURRENT PLUS, DINOSAUR, GOOGLY, PATAKA, PROCRON - 44, SURYA GAGLY	litre		20.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
33	Carbofuran	ALLCARBO, ANUFURAN, CARBOMAIN, DIAFURAN 3G, DON, FURA 3G, FURAN G, FURARUS, FURON -G, KI FURAN, NURADAN GOLD, PEFURAN, PLANT FURAN, STAR FURAN, SUMO	Granual		700.00
34	Alphamethrin 10%	ALFA PLUS, ALFA, ALPHA - M, ALPHADAN-M10, ALPHAPLUS, AXIS, CLICK, COLLECTOR, DOLPHIN, FARSA, GEM, KI-ALFA, KRIALPHA, MERITALPH, NAGMETHRIN, NAYAK, NUMETHRIN, SURYA ALPHA PLUS, THRIL, VIPER 10	litre	EC	330.00
35	Fipronil 0.3%, 5%, 80%, 0.05%	AGADI- G, DEVIGENT PLUS, JUMP- 80, KILL SPOT NOVA, PESTICEAL - GEL, REFREE, REFREE, REGENT, REGENT GR, SRIGENT, STALKER SC, TAGAGENT	Kg/litre	GR, SG, WG, SC, GELL	600.00
36	Zinc phosphide		Kg		41.00
37	Zineb 75%	INDOFIL Z-78, ALL Z- 78, RHINO Z -78			50.00
38	Almunium phosphide	ALLPHOS, CELPHOS, DEVIPHOS, EFFORTS, G-PHOS, GRAINPHOS, KILLPHOS, KINGPHOS, KI-PHOS, PENTAPHOS, QUICKPHOS, REALPHOS, SAFESILO, SALPHO, SANPHOS, SURYAPHOS, SYNFUME	Kg		555.50
39	Fenvalarate 0.4%, 20%	ALL FEN, ALL FEN SUPER, ANUFEN, BRUFEN, DEVIFEN, FENKING, FENVAL, FENVAL, FLAME, KEET GUARD, KI-FEN, KI-FEN, KRIFEN, MOFFEN, MOLTEN, NAGFEN, NAGFEN, NUFEN DUST, REFEN DUST, SET-FENN, SHARE, SICOFEN20, SURYA K-THRIN, SURYAFEN, TATAFEN, TRUMPH CARD	Litre	DP, EC	510.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
40	Cartap Hydrochloride	ACMETAP, ALL TAP, ANUDAN-SP, ANUDAN 4G, BILCOP 50, BEACON, BEEDAN 4G, BILDAN 4G, BOREGAN G, BOREGAN SP, CALDAN 4G, CALDAN 50 SP, CARTAVIP, CENTURY, DHANKAR 4G, DOLLER 4G, FAST 4G, INDIAN SP, INDIAN 4G, CAARDOO, KI-TAP, KRANTI 4G, KRITAP 4G, KRITAP 50 SP, MAHADAN, MODAN, NIDAN 4G, PUSTITOP,RAPID 4G, RETAP, SCIMITAR, SURYA ROYAL GOLD, SURYADAN	Kg	GR	578.00
41	Tricyclazole	BAAN, LOGIK, RPC TRICYCLAZOLE, SHATARANJ, TREO, TRIC, TRIKAAL, TRIP	Kg	WP	282.00
42	Dimethomorph	AVER BILLET, DRAGON, KI-BAT, KINGSTIVAL 50, N-BAT, NACROBALT GOLD, ODIN, REAL BALT	Kg		1282.00
43	Propineb	ANTRACOL, ANTRAGOLD, DEVITRAC, K-COOL, K-ANTRA, PROWL, PROXIMEN, SPORNEB, SURYA PROPINEB	Kg	WP	1522.50
44	Lobelo		Kg		11.60
45	Thiophanate Methyl	ACHOOR, CONTROL, HEXASTOP, KINGSIN-M 70 WP, TURBIN, VAPCOTOP	Kg		235.00
46	Neem		Litre		100.00
47	Indosalfan	ANU- ENDOSULFAN, ALLDON, ARJUN, ENDOCEL, ENDOHIT, ENDOIN, ENDOSUL 35, KI-DON, KRICEL, LUSULFAN, MOLSUFAN, NAGSULFAN, SICOSULFAN, SURYA SULFAN, THIODAN	Litre		135.00
48	Chlorothalonil 75%	DIFFENCE, JATAYAU, KAVACH, PROTECTOR	Kg	WP	600.00

S. N.	Common Name	Trade Name	Unit (Kg or Lit)	Formulation	Total Quantity a.i(Kg)\
49	Nitenpyram 10%	KING GUARD	Kg	SL	10.00
50	Syromaizen		Kg		10.00
51	Dinocap 48%	KARATHANE	Kg	EC	10.00
52	Trico drerma		Kg		100.00
53	Profenphos+cypermethrin				10.00
54	Captan+ Hexaconazole 75%	TAQAT, BOXER	Kg	WP	15.00

2.14 Pesticides consumption record of Parsa District

Insecticides

S.N.	Common name	Trade name	Unit kg/litre	Total quantity
1	Cypermethrine	Acmethrin	Litre	125 litre
2	Deltamethrin	Delcide	Litre	75 litre
3	Chlarphriphos 50 + cypermethrin	Ki- top	Litre	40 litre
4	Chloropyriphos	All bam	Litre	60 litre
5	Dimethoate	Devigom	Litre	70 litre
6	Imidacloprid	Admire W.G.	Litre	40 litre
7	Lanbaccyhalothrin	Agent plus	Litre	140 litre
8	Carbofuran	Anafexam 3%	Kg	540 kg
9	Carbaryl	Sevin	Kg	10 kg
10	Cartaph Hydrochloride	All Tap 4%	Kg	350 kg
11	Acephate	Ace 75 SP	Litre	40 litre
12	Acephate 5%+ Imidacloprid 11%	Surya gold	Litre	120 Litre
13	Alphacypermethrin	Alphashakticop	Liter	290 litre
14	Alphacypermethrin 3%+ Chloropyriphos 16%	Chlothim	Litre	210 Litre
15	Lambdacynalothrin	Agent plus	litre	150 litre
16	Malathion	All mata	Kg	640 kg
17	Novakron	Rimon	Litre	15 litre

Fungicides

S.N.	Common name	Trade name	Unit kg/lit	Total qty.
1	Mancozeb	Due	Kg	250 kg
2	Mancozeb 64%+ metalaxyl8%	Due	Kg	150 kg
3	Hexaconazol	Sitera	Kg	190 kg
4	Carbandazim	All stin	Kg	880 kg
5	Carbandazim 12%+mancozeb	Kisan suraksha	Kg	360 kg
6	Carbandazim15%+ Thiram 50%	Smooth	Kg	10 kg
7	Difenoconazole	Moximate	Kg	12 kg
8	Copper oxycloride 50 WP	Blitox	Kg	60 kg
9	Captan	Captra	Kg	220kg

Rodenticides

1	Bromodiolone 0.25	Roban	Kg	8kg
2	Zinc phosphate	All commando	Kg	14 kg

Herbicides

S.N	Common Name	Trade Name	Unit	Quantity
1	2-4-D Sodium salt	All cel	Kg	380 kg
2	Glyphosak	Glymol	Litre	520 kg

Bio Pesticides

S.N	Common Name	Trade Name	Unit	Quantity
1	Pseudomonas flurescens	Bio C.B	Litre	40 litre
2	Trichodermaviride	Bio powder F	Kg	60 kg
3	Azadirachtin	Multinemor	Litre	80 litre

2.15 Pesticides consumption record of Makawanpur District

Insecticides

S.N.	Common name	Trade name	Unit kg/litre	Total quantity
1	Cypermethrine	Acmethrin	Litre	125 litre
2	Deltamethrin	Delcide	Litre	75 litre
3	Chlarphriphos 50 + cypermethrin	Ki- top	Litre	40 litre
4	Chloropyriphos	All bam	Litre	60 litre
5	Dimethoate	Devigom	Litre	70 litre
6	Imidacloprid	Admire W.G.	Litre	40 litre
7	Lanbaccyhalothrin	Agent plus	Litre	140 litre

S.N.	Common name	Trade name	Unit kg/litre	Total quantity
8	Carbofuran	Anafexam 3%	Kg	540 kg
9	Carbaryl	Sevin	Kg	10 kg
10	Cartaph Hydrochloride	All Tap 4%	Kg	350 kg
11	Acephate	Ace 75 SP	Litre	40 litre
12	Acephate 5%+ Imidacloprid 11%	Surya gold	Litre	120 Litre
13	Alphacypermethrin	Alphashakticop	Liter	290 litre
14	Alphacypermethrin 3%+ Chloropyriphos 16%	Chlothim	Litre	210 Litre
15	Lambdacynalothrin	Agent plus	litre	150 litre
16	Malathion	All mata	Kg	640 kg
17	Novakron	Rimon	Litre	15 litre

Fungicides

S.N.	Common name	Trade name	Unit kg/lit	Total qty.
1	Mancozeb	Due	Kg	250 kg
2	Mancozeb 64%+ metalaxyl8%	Due	Kg	150 kg
3	Hexaconazol	Sitera	Kg	190 kg
4	Carbandazim	All stin	Kg	880 kg
5	Carbandazim 12%+mancozeb	Kisan suraksha	Kg	360 kg
6	Carbandazim15%+ Thiram 50%	Smooth	Kg	10 kg
7	Difenoconazole	Moximate	Kg	12 kg
8	Copper oxycloride 50 WP	Blitox	Kg	60 kg
9	Captan	Captra	Kg	220kg

Rodenticides

1	Bromodiolone 0.25	Roban	Kg	8kg
2	Zinc phosphate	All commando	Kg	14 kg

Herbicides

1	2-4-D Sodium salt	All cel	Kg	380 kg
2	Glyphosak	Glymol	Litre	520 kg

Bio Pesticides

1	Pseudomonas flurescens	Bio C.B	Litre	40 litre
2	Trichodermaviride	Bio powder F	Kg	60 kg
3	Azadirachtin	Multinemor	Litre	80 litre

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