INDEX

NAME

AIM :PESTISIDES OF FRUITS

13.

INTRODUCTION

Pesticides are a numerous and diverse group of chemical compounds. Which are used to eliminate pests in agriculture and house holds. They enable the quantities and the quality of crops and food to be controlled and help to limit the many human diseases transmitted by insect or rodent vectors. However despite their many merits, pesticides are some of the most toxic environmentally stable and mobiles substances in the Environment their excessive use has a deleterious effect on humans and the environment their presence in food is particularly dangerous with their Environmental stability, ability to and toxicity, pesticides may places the human body at greater risk of disease and poisoning.

Pesticides enter the environment in various forms (e. g: powders, moistened powders, for preparing aqueous solutions and concentrates for making up emulsion or sprays) pesticides are of enormous importance increasing the yields and quality of agriculture products they are used to:

- Control the numbers of pests destroying whole plants or their parts;
- Increase the production of animal and plant biomass
- Combat microorganisms causing farm produce to rot and to decay
- Combat algal, bacteria, fungi, and weeds;
- Combat animal pests damaging crops (e. g: mites, aphids, insects, larval and nematodes) ;
- Stimulate or inhibit plant-growth processes (e. g: remove Excess flowers, destroy foliage or dry out plants) ;
- Make possible the action of other substances
- Counteract growths on boats and ships
- Kill harmful organisms in the farm buildings the home, hospitals , stores and vehicles

The widespread use of pesticides not only contaminates water, soil, and air but also causes them to accumulation in crops (e. g :fruits and vegetables). Pesticides are transported mainly by rain and wind from their points of application to crops and land. Where their presence be undesirable or harmful. A pesticides can be defined as any chemical used to directly control pest populations or to prevent or reduce pest damage. Pesticides also include compounds intended for use as plant growth regulators, defoliants, or desiccants even though they are not normally used as pest control agents, nor are they usually effective as such. It is important to remember that the"-cide" in pesticides means "to kill", these products can be dangerous if not used properly.

Pesticides use has increased agricultural production worldwide and there by contributed to food security

With the expect 30% increase of world population more than 1100 pesticides have been widely used in various combinations at different stages of cultivation and postharvest storage. Despite their Usefulness' pesticides could potential risks to food safety and the environment. Pesticides could possible remain in

Scope :

Pesticides us with the expected 30% increase off world population 9.2 billion by 2050, there is a

projected demand to increase food production by 70% according to the calculation by

population, there will be Continuing need for pesticides based Solution. For pest control and

food security in the future to increase food product to meet the increasing food supply more

than 1100 pesticides have been widely used in various combinations at different stages of

cultivation and Postharvest storage. Despite their usefulness. Pesticides could pose potential

risks to food safety and the environment pesticides residues could possibly remain in food stuff.

Such as fruits and vegetables, which pose a potential threat to human and animals health for

this reason, most countries or regions have drafted rigorous regulations to levels for

compliance. However, pesticides in crop production and to monitor their residues are one of the

most frequently detected xenobiotic in food analysis, especially in enormously consumed fruits

and vegetables all over the world.

The EPA PGP will cover pesticides authorized for use under FIFRA, and generally includes

pesticides application covered by the 2006 rule.

1.The EPA PGP will cover the following pesticides use pattern for control of.

2.Mosquitoes and other flying insert pesticides

3.Weed and algae

4.Animals pests

5.forest canopy pest

Pesticides are among leading causes of death by self poisoning, in particular in low and middle

income countries as they are intrinsically toxic and deliberately spread in the environment, the

production regulations and use of pesticides require strict regulation and control. Regular

monitoring of residues in food and the environment is also required.

Wide scope screening of pesticides fruits and vegetables using information dependent aca

vision employing 41+PLC-TOF-MS and automated Ms/Ms library for simultaneous screening and

identification of 427 pesticides in showed that 97.4% of the pesticides in fresh fruits and

vegetables had the screening detection limit less than 50mgkg and more than 86. 7% pesticides

two objectives in relation pesticide.

1.To ban pesticides that are most toxic to human, as well as pesticides that remain for the

longest time in the environment.

2.To protect public health by setting maximum limits for pesticides residues in food and water.

Objectives :

Analyze food and chemical issues determine how science affected food through production, packing and health. Debate and benefits and risks of pesticides use

Calculate the standard liquid measurements for mixing of agricultural chemicals.

To develop a method of accessing imports on human health and ecosystems considering the most used pesticides to make the general method operable for any kind of crops growth in Mediterranean green house

1. Understand pesticides.
2. Identify common four misted chemicals.
3. Determine the deference between chronic and acute toxicity.
4. Discuss explosive routes of chemicals.
5. Identify personal protective equipment (PPE).
6. Examine signs of pesticides poisoning.
7. Look at first and treatment.
8. Recognize proper storage and disposal practices.
9. To describe occurrence in the environment & sampling regime of atrazine in public water suppliers.
10. To assess Kentucky water systems complete with the EPA regulations identity the health implications & public health role.
11. To determine if the current monitoring regions is adequate in detecting atrazine levels of comer with focus on the critical time of the exposure the atrazine.
12. To investigate pesticides abuse on fruits and vegetables in Tianjin area to detect pesticide residues in fruits and vegetables.
13. To study the methods for reducing pesticides residues in fruits and vegetables.

Methods :

1. A questionnaire on the pesticides application during growing in fruits and vegetables was administered to 185 formers Tianjin area.

2. According to the information from the questionnaire survives fruits and vegetables samples was collected in four seasons around the year and measured for organ phosphorus pesticides reduces by gas chromatography.

3. Fruits and vegetables samples contained pesticides residue were treated by scald immersion in 0.15 % and 0.30 % detergent solution immersion impure water peeling cutting root and pesticides reduces were measured before and after the treatment.

4. To ban pesticides that most toxic to humans, as well as pesticides that remain for the longest time in the environment.

5. To protect public health by sitting maximum limits for pesticides residues in food and water.

Methodology :

In addition fruit also we have found in 20 types of pesticides residue in mango trees found

21 types of in orange trees. In the method of minimizing pesticides residue that the washing with water

first soak in water 10 min flow

STEP 1 : collection of respective samples.

STEP 2 : Isolation of residue extraction .

STEP 3 : Separation of co-extracted matrix components clean up.

STEP 4 : Identification and quantification of far get analysis.

STEP 5 : confirmation of results by an additional analysis.

Methodology are two types

1.primary method

2. Secondary method.

Primary method

Some primary methods are

*Dusting

* Sparing

* Granular

* Speed pelleting/ seed dressing

* Seedling root dip

* Sett treatment

* Trunk/ steam injection

* Padding

Dusting :

Dusting In carried out in the morning hours and during very light air stream. It can be done

manually or by using dusters. Some times dust can be applied in soil for cheaper and suited for dry land

crop pest control.

Spraying :

Spraying is normally carried out by mixing EC or WP formulations in water.

Grnular:

Highly toxic pesticides are handled safely in the form of granules. Granules can be applied directly on the soil or in the plant part

- Broadcasting
- In furrow apply
- Seed dressing
- Spot application
- Ring
- Root zone
- Pralinage
- Broadcasting :

Granules are mixed with equal quantity of sand broadcasted directly on the or in the film of standing water rice nursery carbonfuran 3%G applied 1.45 kg/8 cent rice nursery in this film of water and impound water for 3 days.

- In furrow application:

Granules are applied at the time of sowing in furrow applied@3g sorghum shoottly.

- Seed dressing :

After the establishment of the planets the granules are applied a little away from the plant (10-15cm) in a furrow.

- Spot application :

Granules are applied@5cent away and 5 cm on the sides of plant. This reduces the quantity of insecticide required.

- Ring :

Granules are applied in a ring form around the trees.

- Root zone :

Granules are encapsulated and placed in the root zone of the plant by mixing it with equal quantity of sand in the central whoral of crops like sorghum maize fruit , vegetables ,sugar cane to control internal borders.

- Pralinage :

This surface of banana sucker intended for planting for planting is trimmed . The

sucker is dipped in wet clay slurry and carbonfuran 3G is sprinkled (20-40gt sucker) to control burning nematodes

- Speed pelleting/speed dressing :
  The insecticide mixed with seed before sowing sorghum seed are treated with chlopyriphos riced to control shoottly. The carbonfuran 50 sp and imdacloprid is directly used as
  day seed dressing insecticide against cotton sacking pests.
  Seedling root dip :
  It is followed to control early stage pests in fruits to control sucking pests and stem borer in early transplanted crop a shallow pit cined with polythene sheet is prepared in the field. To this 0.5 kg urea in 2.5 litres of water prepared separately are poured .The solution is made up to 50ml with water and the root of seedlings in boundless are dipped for 20min before
  transplanting
  • Sett treatment:
  Treat the sugar cane and fruits setts in 0.05%malathion for 15 min to protect them from scale . Treat the fruits setts in 0.05% . Imdacloprid 70ws@ 175g/ha for 15min to protect them from termies.
  • Trunk/steam injection :
  This method is used for the control of coconut pests like black headed caterpillar mite ect., Drill a downward slanting hole of 1.25cm diameter to a depth of 5cm at a
  light of a about 1.5 m above ground level and inject 5ml of mono crotophos 36 WSC into the stem and plug the hole with cement or clay mixed with a fungicide pseudo stem injection of banana an injecting gun or hypodermic syringe is used for the control of banana aphid vector of
  bunchy top diseases.
  • Padding :
  St borers of mango silk and cotton and cashew can be controlled by this method.
  Bark of infected tree (5*5 cm) is removed on three sides leaving bottom as a flop. Small quantity

as absorbent cotton is placed in exposed area and 5-10ml of mono crotophos 36 WSP is added using an inc filler close the flap and cover with clay mixed with fungicide

Name : P . Kanaka Sri

Roll Number: 203732

Farmer name:Venkatalakshmi

Age: 45

Type of farming: Tamota

Area : Vatluru

Name :M . Sai Jyothi
Roll Number: 203729
Farmer name:Ramarao
Age: 37
Type of farming: Banana
Area : Nagavaram

Name:M . Sai Prasana
Roll Number:203728
Farmer name: Lakshmi
Age: 47
Type of farming: Brinjal
Area : Denduluru

Name: P . Naga Durga Mounika
Roll Number: 203731
Farmer name: p. Venkateswararao
Age: 40
Type of farming: banana
Area : Ramaraogudem

Name:K . Ishwariya
Roll Number: 203723
Farmer name: Prasad
Age: 49
Type of farming: corn
Area : Jogannapalem

Name: K . Anitha

Roll Number:203725

Farmer name: Nirmala

Age: 50

Type of farming: Mirchi

Area: Bommuluru

Name: N.Thanusha Rani

Roll Number: 203730

Farmer name: M.srinivasa

Age: 50

Type of farming: Guava

Area: Thotagudem

Name: G . Divya

Roll Number:203721

Farmer name : ck sindhu

Age: 29

Type of farming: Apple

Area:Bommuluru

Name: M . Sandhya

Roll Number:203704

Farmer name: Yesu babu . madasi

Age:42

Type of farming: corn

Area: Krishnapuram

Name:K . Sruthi
Roll Number:203724
Farmer name: Baburao
Age:40
Type of farming: Mirchi
Area: Thotagudem

Name:Likitha.R
Roll Number: 203726
Farmer name: R.Koteswara Rao
Age:45
Type of farming: Coconut
Area: Pedavegi

Name:Durga mahalakshmi
Roll Number: 203703
Farmer name: Koteswarao
Age:48
Type of farming: sugar cane
Area: Vatuluru

Name:P . Hima Bindhu
Roll Number: 2037
Farmer name: Y . Chanti
Age: 55
Type of farming: Mango
Area: Hanuman Junction

Secondary Methodology For Pesticides

Both EPA'S National Pesticides and National water programs assess the effect of pesticides on aquatic ecosystems using approaches were developed with high quality data using rigorously peer reviewed assessment methodology.In characterizing pesticides effects as well as chronic and sub-lethal effects on growth survival and reproduction in their assessments.

*Are legally defense under our statutory mandates.

*Are implementable at the federal and state level.

*Are developed as quickly and efficiently as possible.

*Reflect stakeholders input and comments.

*Multi residue determination of Pesticides in wine by electrospray lonization liquid chromatography tandem mass spectrometry (Ls/Ms/Ma).

*Multi residue determination of Pesticides in wine by GL/MS triple quad (GL/MS/MS).

*Limit of quantification:0.010ppm(10ppb) consider the lowest worldwide standard for most agrochemicals (MRL'S).

*Values <0.01ppm consider non-defectable.

*Includes fungicides, insecticides,aracnicides and herbicides.

*Lab values stored in LCMS database

The water flow third wash are at a time for 20mins.It can reduce the pesticides vesidue up to 60-70% well get fruits and vegetables that have less pesticides residue vinegal baking soda.Turmeric powered is also used to remove Pesticides and help to kill germs in fruits and vegetables.

Current Activities For Developing Common Effects Methodology For Pesticides:

A FIFRA (Federal Insecticides, Fungicides and Rodenticide Act) Scientific Aduisory pane(SAP) meeting was held in late January 2012.The FIFRA SAP is composed of biological statisticians toxicologists and other experts who provide independent scientific advice to EPA on a wide range of health and safety issues related to pesticides a common effects methodology.

The SAP review was highly favorable and the SAP made a number of recommendations for EPA to move forward with their approach in a report issued in April 2012.

QUESTIONARE :

S.No	Questions	A	B	C	D
1	Experiences in vegetables production	19	22	13	
2	Proctetion measure during spraying	8	24		
3	Where do you store pesticides	18	14	8	
4	Do you follow instruction on label	23	8		
5	How many hours do you work in field	13	20	19	

			卌 卌 ||		
6	How many pesticides do you apply per month	卌 卌 卌 卌 卌 卌 |||	卌 ||||	卌 卌 ||	
7	Which type of field u have	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 ||	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 ||		
8	Pestisides application timing	卌 卌 卌 卌 卌 卌 卌 卌	卌 卌 卌 卌 卌 卌 卌 卌 ||	||	
9	Positions of spary head	卌 卌 卌 卌 卌 ||||	卌 卌 卌 卌 卌 卌 卌 卌 卌 ||||	卌 卌 卌 卌 卌 卌 卌 卌 ||||	
10	Pestisides sparying Technique in thec field	卌 卌 卌 卌 卌 卌 卌 |	卌 卌 卌 卌 ||||	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 ||||	卌 |||
11	Number of spray application for per crop	卌 卌 卌 卌 卌 卌 卌 |||	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌	卌 卌 卌	卌 卌 |||
12	Pesticides are positions	卌 卌 卌 卌 卌 卌	卌 卌 卌 |	卌 卌 卌 卌 |	

		𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||			
13	Sign poisoning in pesticides	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||||	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||	𝍸 ||||
14	Types of pesticides application	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||||	||
15	Do you think that pestisides affect the environment	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||||	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 |	|||
16	Which age is harmfull to pestisides	𝍸 𝍸 𝍸 ||	𝍸 𝍸 |	𝍸 𝍸 𝍸 𝍸 ||||	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||
17	Which deasise to cause the pestiside	𝍸 𝍸 ||	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||	𝍸 𝍸 𝍸 𝍸 𝍸 |||	𝍸 |||
18	Incsectidcides kill	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 ||||	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	

		卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 ||||		卌 卌 卌 |||	
19	The most common pesticides used in india is	卌 卌 卌 卌 卌 卌 ||||	卌 卌 卌 卌 卌 卌 ||||	卌 卌 卌 卌 卌 ||	卌 卌 卌 卌 卌 卌 |||
20	Pesticides generally attack	卌 卌 卌 卌 卌 |	卌 卌 卌 卌 卌 卌 卌	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 ||||	||

PROBLEMS IDENTIFICATION : pesticides are among leading causes of death by self- poisoning in particular in low and middle income countries.As they are intrinsically toxic and deliberately spread in the environment, the production,distribution,and the use of pesticides require strict regulation and control.Regular monitering of residue in food and the environment is also required.

-----> The EPA PGP will cover pesticides autorized for use under RIERA, and generally includes pesticide applications covered by the 2006 rule.

-----> The EPA PGP will cover the following pesticide use patterns(with discharges to waters of the u.s) for the control of:

-----> Mosquitoes and other flying insect pests

-----> weed and algoe

-----> Animal pests

-----> forest canopy pest

-----> Direct impact on humans

-----> possible carcionogenicity,neurotoxicity,reurotoxic reproductive and metabolic toxicity of pesticide accumulating in the body.

-----> Impact on Environment soil contamination

-----> surface water contamination

-----> Ground water contamination

-----> Effect on soil fertility, air contamination

-----> Effect and destruction of useful organisms

-----> Non-target vegetation contamination

-----> Increase the production of animal and plants biomass

-----> combal micro-organisms causing from produce and to decay

-----> combat algae, bacteria, fungi and weeds

-----> there are numerous health hazards linked to the use of pesticides.pesticides can have grace effects on health of anybody consuming fruits or vegetables highly contaminated with pesticides.

-----> high levels of pesticides in food can lead to development of diseases such as cancer ,kidney and lung aliments.

-----> childrens have developing organs ,prone to catching infections and diseases .

-----> Any exposure to these high chemical residues can lead to childhood cancers ,mental health problems such as autism and attention deflict hyper activity disorder.

-----> pesticide may also be transported by rain and wind from the points of application to adjacent areas where their presence may be undeseirable or harmful.

-----> pesticide are among the most dangerous compounds in the environment because of their extensive usage ,stability, selective toxicity and bioaccumulation.

-----> endocrine disruptor

-----> Thyroid disruption properties in birds ,amphibians and fish.

---→ carcinogen

---→susceptibility to fungal infection

---→ Earthworms became infected with monocystid gregarines

---→Interact with vertebrate immune systems

---→ Animal infections, disease outbreaks and higher mortality.

---→ immunotoxicity primarily caused by the inhibition of serine hydrolases or esterases.

---→ oxidative damage

---→ Impaired metabolic functions such as thermoregulation

---→ respiratory, cardivascular, neurological and immunological toxicity in rats and humans

---→ Effect various physiological and behavioral traits of beneficial orthropods, particularly hymenopterans .

---→ Reduced food availability and adverse secondary effects on soil invertebrates and butterflies.

---→ decreased species abundance and diversity in small mammals.

---→ nitrogen fixation ,which is required for the growth of higher plants, is hindered by pesticides in soil

---→ pesticides have some direct harmful effect on plant including poor root hair development , shoot yellowing and reduced plant growth .

---→ The use of pesticides is that their resides persist in water and other components of the environment as they are not easily degraded in the environment.

---→ pesticides also have the potential to harm the nervous system , the reproductive system, and the endocrine system.

---→ pesticides can contaminate soil, water, turf, and other vegetation.

---→ pesticides can reduce populations of helpful insects .

---→ pesticides may lead to polination problems.

---→ adverse health effects on farmers

---→ crops may get contaminated with harmful substances

---→ pest resistance in the long run

---→ pesticide poisoning

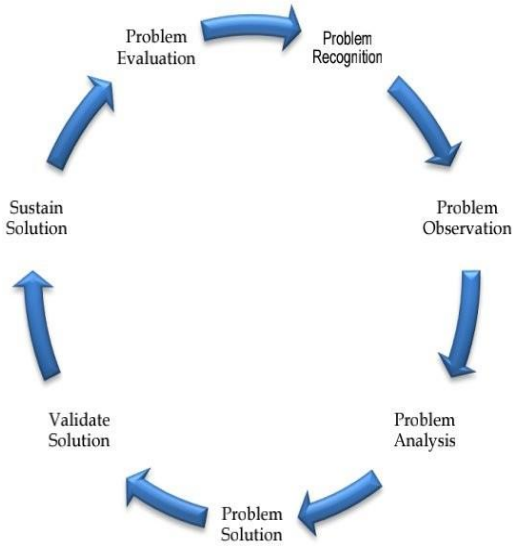
---→ problematic for flora and fauna

---→ Ecological imbalance

---→ Rather unclear iong-term effects .

---→ The problem of pesticides is that they can lead to serious soil pollution.

Problem Analysis



Analysis of the Problems:

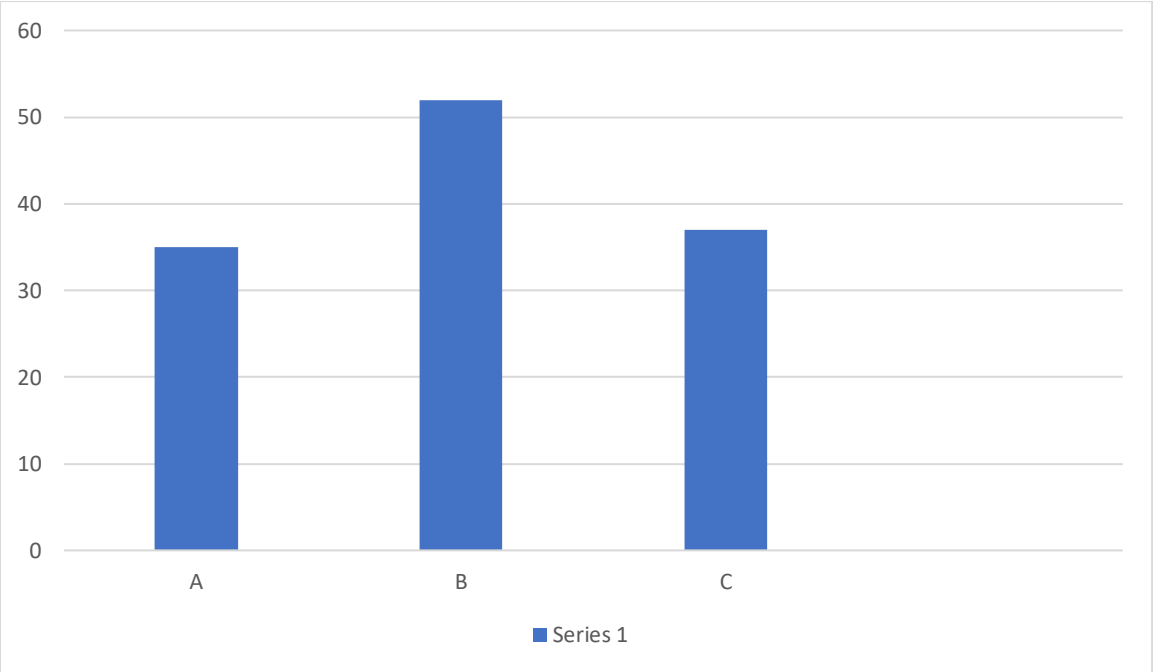
The Method has been widely used for the Analysis GCMS Analyze, Triple Guadnepole.Traditional techniques are laborious,costly and consuming.They are several advanced techniques for the determination of pesticides.Pesticide toxicity and availableextraction methods any chemical,biological substances or mixture of substances intended for preventing,destnying,attracting,repeling or controlling pest.Reducttion of beneficial spieces resistance ground water contamination Drift of sprays and Vapours resides in food.Extraction is the Process by which toxicant is transformed from the treated bulky biological material into solvent clean up isolation of toxicant from interfing substance or solvent.

Three kinds of Spectrophotometric Methods in pesticide residue analysis.ultraviolet visible and in formal methods

- Various techniques of Chromotography
  1.Column chromatography gas chromatography liquid chromatography
  2.Affinity chromatography
  3.Inexchange chromatography

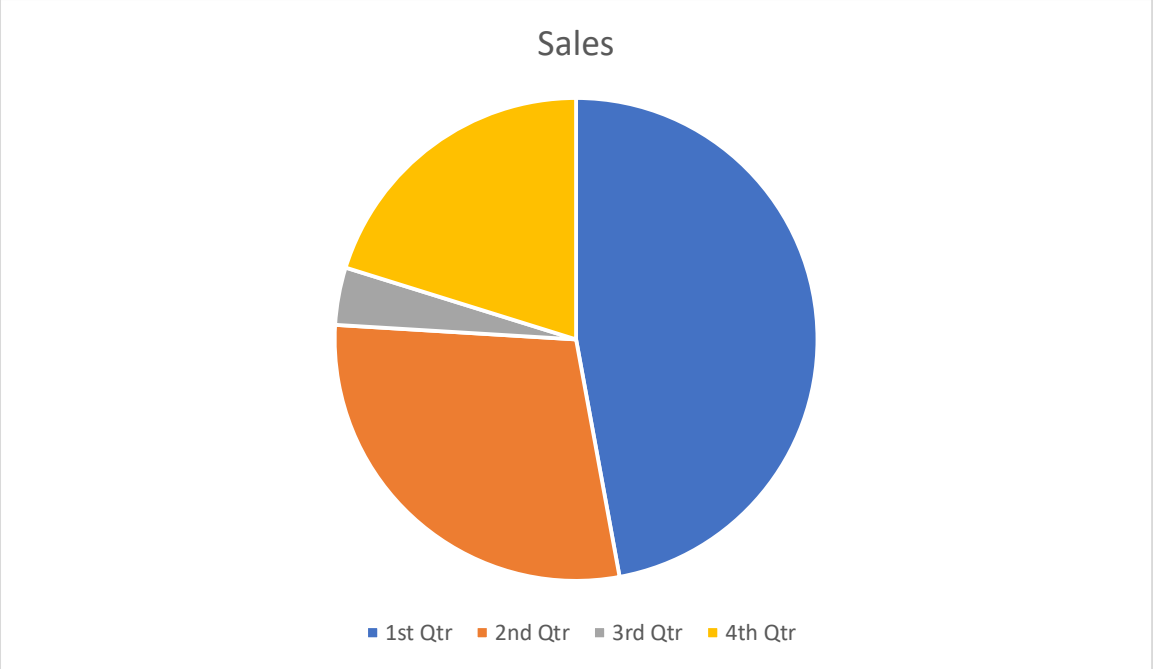
Experince in Vegetables Producinig

Options	Experience	
A	5 Years	35
B	10 Years	52
C	Both A and B	37
D	15 Years	0



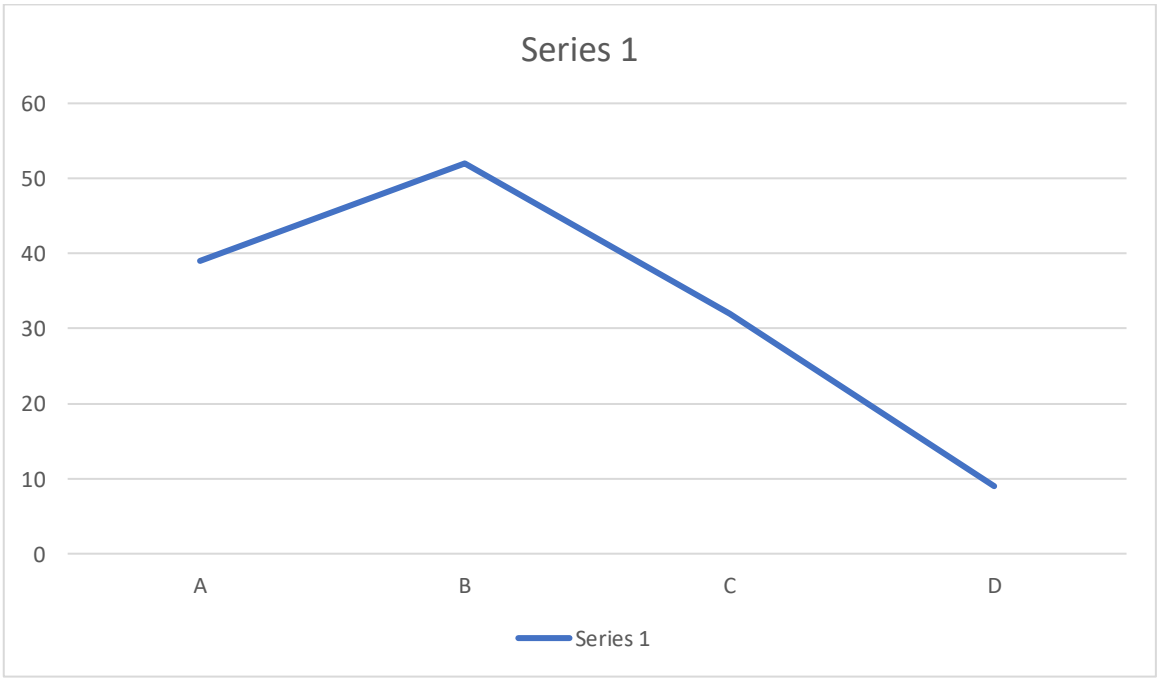
2 . Pestiside sparying Technique Used in field

opitions	techniques	
A	Spray against the world	49
B	Spray with the wind	30
C	Walk forward	21
D	Walk bckward	04



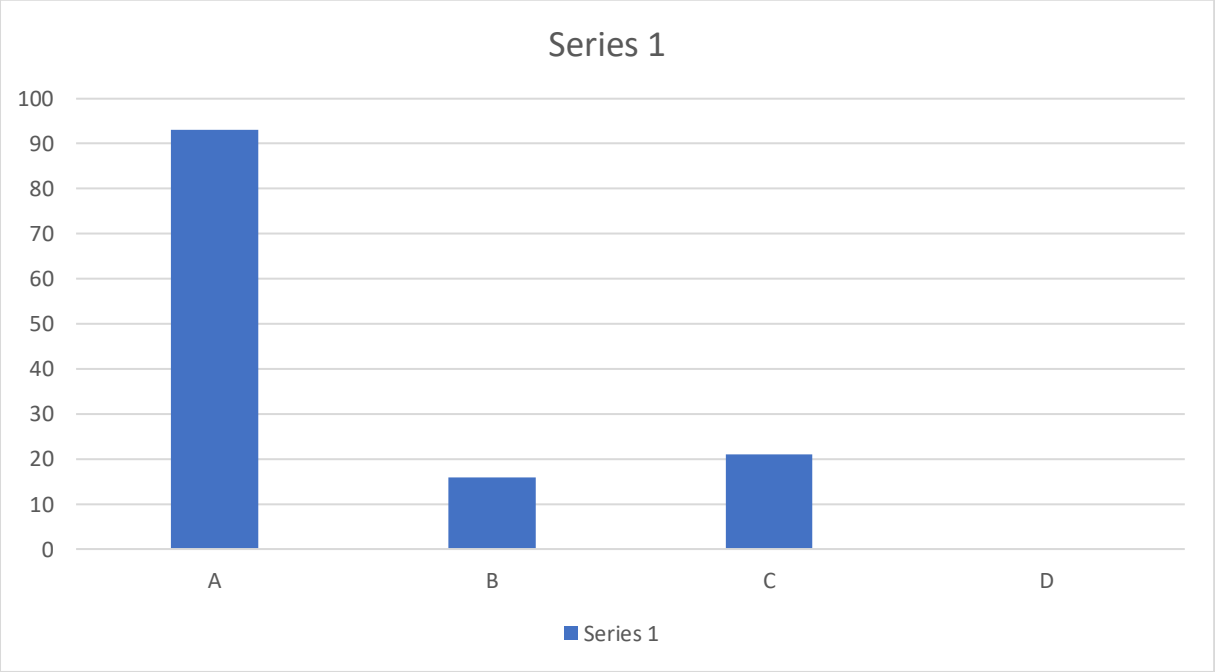
3.Number sign of passing with Pesticide

Options	Effects	
A	Burning gas	39
B	Cough and Head Ache	52
C	Skin inflowbin	32
D	Others	09



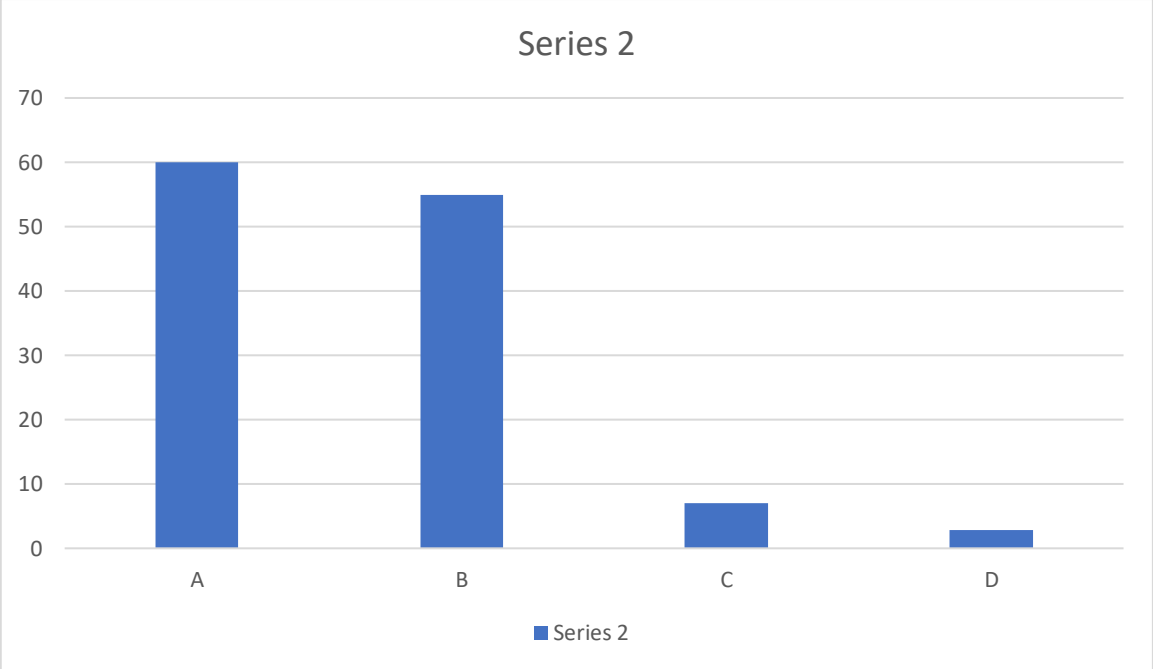
4 . Pesticides are poisonous

Opitions		
A	Agree	93
B	Natural	16
C	Disagree	21
D	Both A and B	00



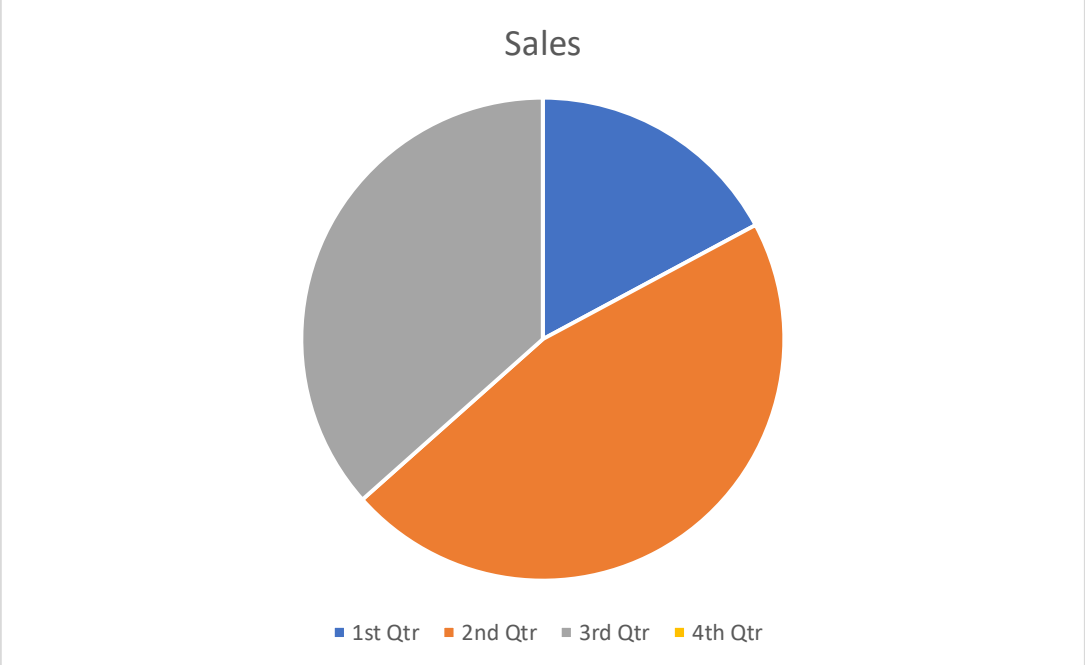
5 . Do you think pesticides affect the Environment

Opitions		
A	Strongly Agree	60
B	Agree	55
C	Storngly Disagree	07
D	Disagree	03



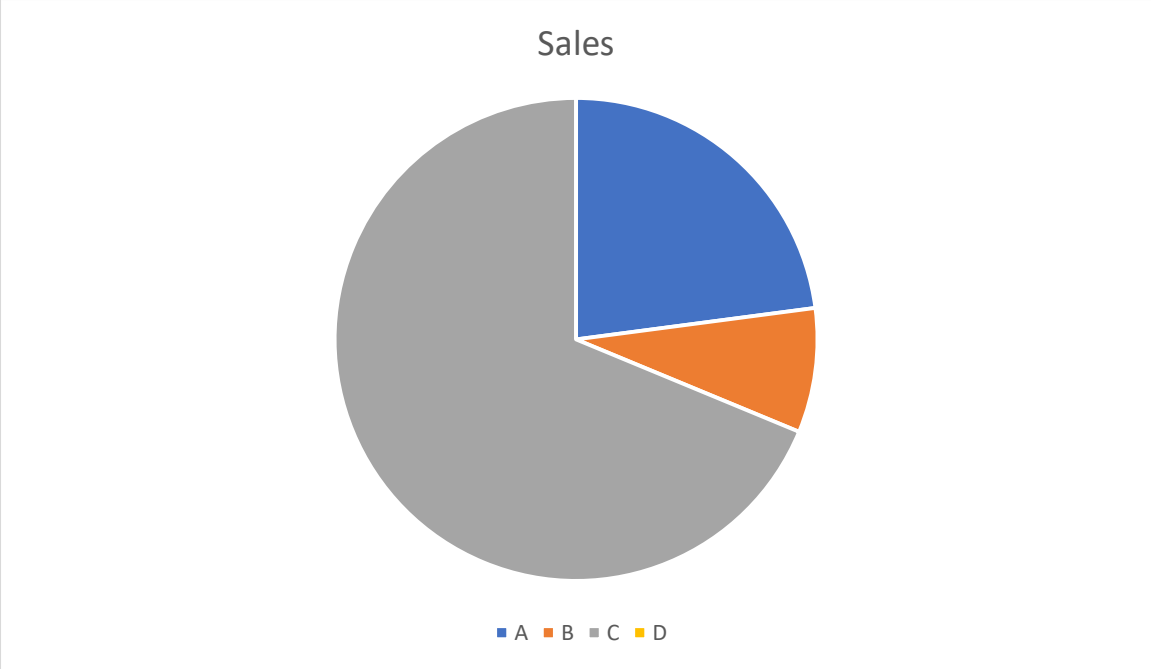
1. How many hours do you work in the field

Opitions		
A	3.4 Hours	23
B	5.7 Hours	62
C	➢ 7 Hours	49
D	Non of These	00



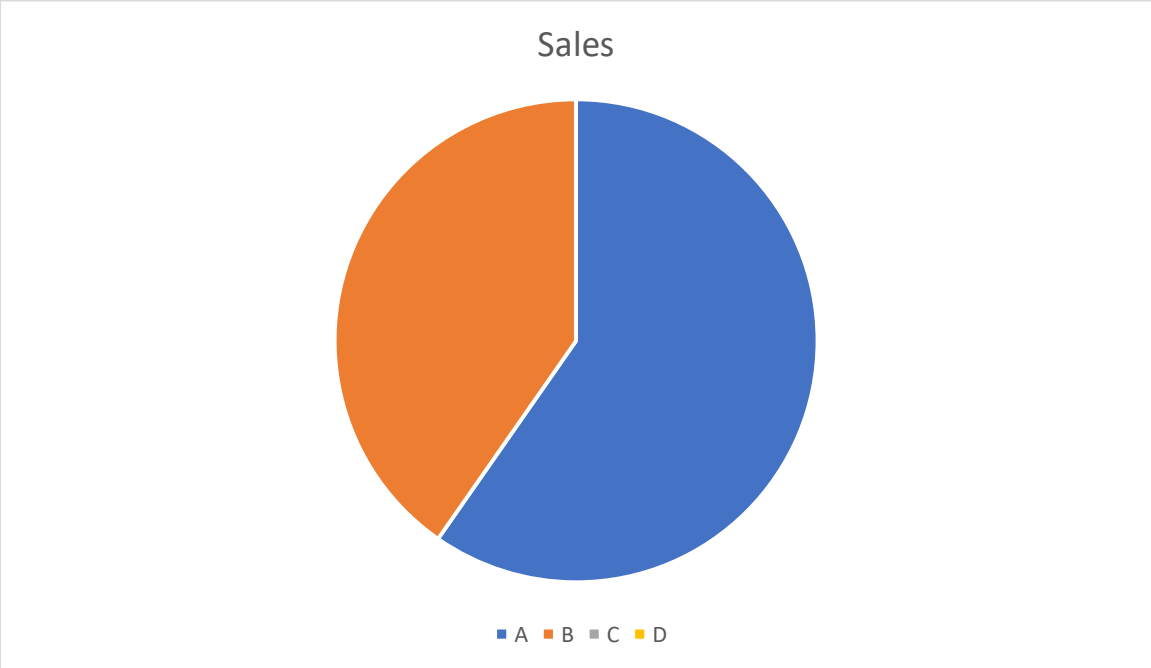
2. How many pesticides do you apply per month

Opitions		
A	1	33
B	2	12
C	None of These	99
D	More Than 2	0



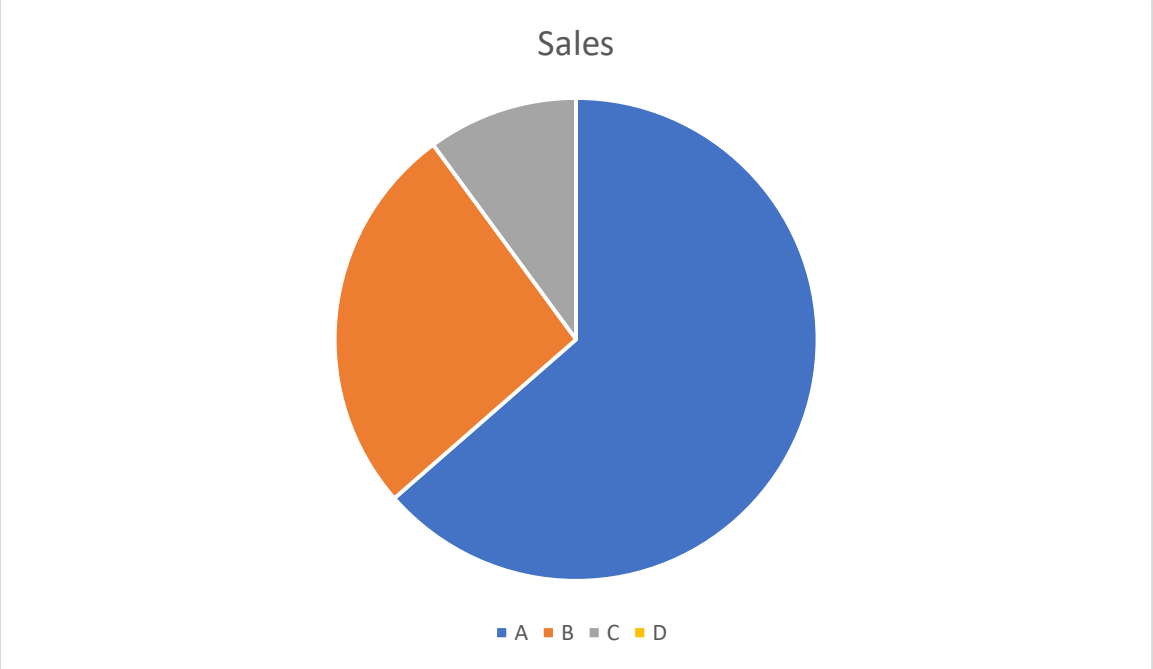
3. Which type of field you have

Opitions		
A	Vegetables	77
B	Fruits	52
C	Both A and B	00
D	None of These	00



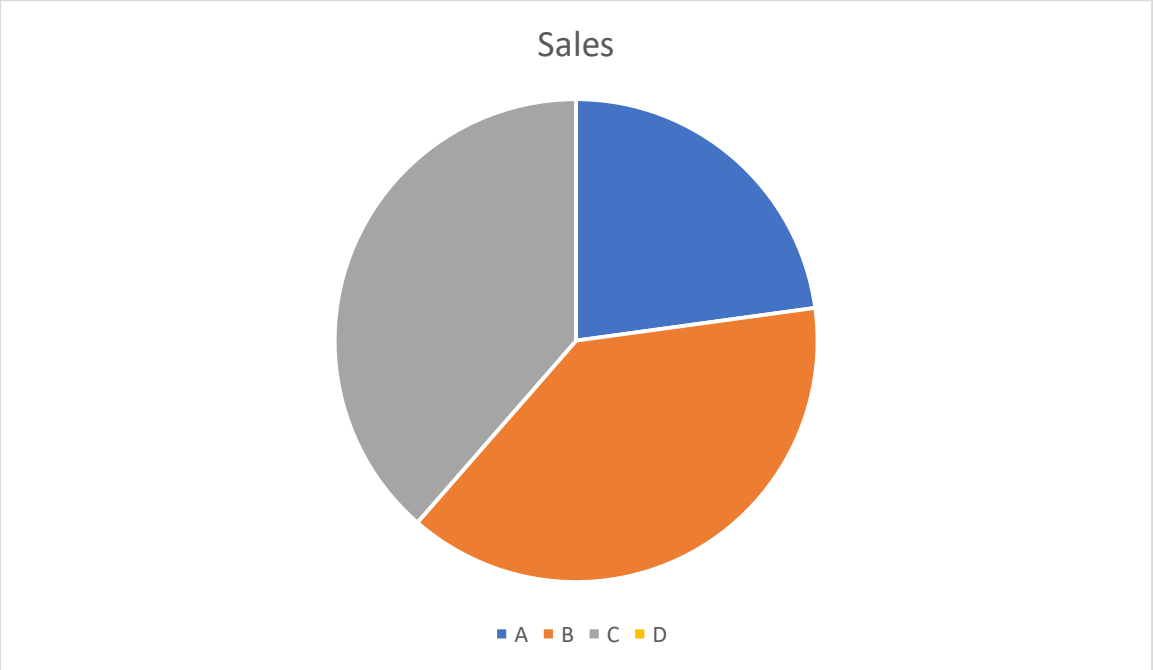
4. Where do you store pesticides

opitions		
A	Store room	82
B	Garden,Open field	34
C	Cool storge, Refrigerator	13
D	outside	0



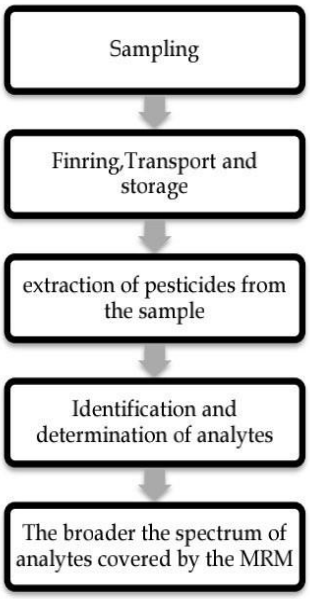
5. Positions of spray head

Opitions		
A	20cm above plants top	29
B	At plant tops	49
C	Targeted Insectse diseases	49
D	None of these	0



Analysis

- The main stages in anailtical procedures for determination pesticides In samples of fruits&vegetables
- The analysis of pesticides in biological samples continues to prevent challenges to analysts
- The number of problems crop up in the analysis of pesticides.
- The complexity and the diversity of matrices in biological



- The less additional methods are required to all analytes
- The more efficient and economical the analysis
- Less time,personal,materials……

Some of the most Commonly used solvents for pesticide residue in fruits and vegetables and acetoethyl acetate,dichloromethane,methanol and tolorence.In certain cases,the mixtures of solvents are used to improve the recovery of the methods.

Recommendations:

➢ Collaborate with the Rotterdam convention to strengthen capacity building programs and the use of the knowledge base maintained by the Convention.

➢ Fulfill a role in supporting collaboration among developing countries to strengthen pesticide risk regulation.

➢ Explore the options to make regulatory risk data more transparent and publicly accessible. This could require long-term changes in the organization and funding of the underlying risk research and the structure of the intellectual property rights of risk data.

➢ Strengthen research and Extension in the fields of agroecology, organic farming and IPM, in particular supporting network initiatives on these themes and local universities and farmer associations in developing countries.

➢ Stop all exports of crop control products banned in the EU.

➢ Only allow the export of several restricted pesticides if these are regulated accordingly and used properly in the importing country.

➢ Support developing countries in developing an efficient process of re-evaluating pesticide registrations according to contemporary good regulatory practices in line with the FAO/WHO Code of Conduct.

➢ Buy only original products, with authorized sellers.

➢ Buy the pesticides according to your needs to reduce storage time and Surplus.

➢ Comply with all local legislations concerning storage.

➢ Pesticides should be stored Safely, locked, out of the reach of Children and unauthorized persons. They must also be out of the reach of animals.

➢ The Storage place should dry and have a good ventilation.

➢ In case of spillage follow the instructions on the label for cleaning and proper disposal.

➢ More dilute then on the label.

➢ At the lower rate than on the label

➢ Less frequently than on the label.

➢ For pests not on the label, as Long as the Site orcmp is listed and other restrictions are observed.

➢ It is illegal to apply pesticides in the following ways:

o Using less diluent (water) then on the label, thus increasing the concentration.
o Ata higher rate per acre than on the label.
o Shortening the specified interval between applications.

Conclusion :

• Pesticides are an increasingly important part of

• Agricultural production technology but…

• Their inherent toxicily means they will continue to face striment

Regulation.

• Difference in access to pesticides, or in their cost will affect

Production opportunities.

• Farmers appear to be successful in adapting their pest management

Strateges to difference in prices in the cases where a number of

Substitudes exist.

• Pesticides are a very diverse group of chemical hence it is

Difficult to explore all the ramifications .

• Microbial and faunal population in time get to lerant to

Pesticides though there is considerable stress on the ecosystemic.

• Also major processes such as enzyme activity, respirations,

Carbon and nitrogen mineralization are majorly effect.

• The widespread use of pesticides is in effective and economically

Harmful in the long run.

• Their detrimental effect on health and environment make

Them an inadequate long term solution.

• BIn addiction, most synthetic and natural pesticides are susceptible

To in effective ness due to resistance build up in insects.

• Thus the only viable solutions for the future is IPM.

• The economics benefits and reduced social costs of these

System present a logical answer to the post control problem.

• These products can be dangerous if not used properly.

• Parasite will help in selecting which pesticides to use.

• The developed method allows qualitative and quantitative

• Analysis of 427 pesticides in fruits and vegetables samples in UHPLC- QTOF-MS with the

REFERENCE :

Some direction are use that pesticides users must be obey are contained in documents That are only refered to on the product labeling.

These reference too ther documents is a new practice it is necessary because there is no Longer room in the traditional pesticide label to explain the requirement of alllaws and Regulations that may apply to the user for example EPA has adopted orisc on side ring new requirements

☞ ground water protection

☞ pesticides transportation, storage and disposal worker protection

☞ Endangered species protection

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