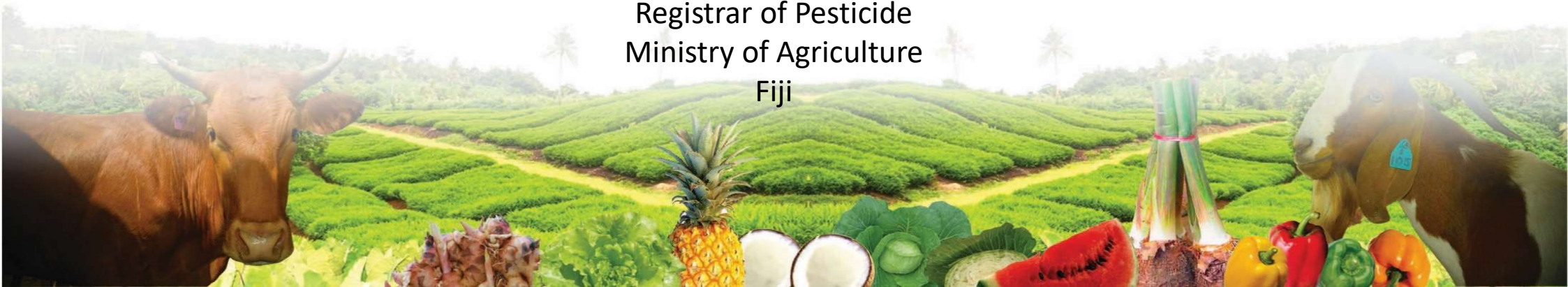
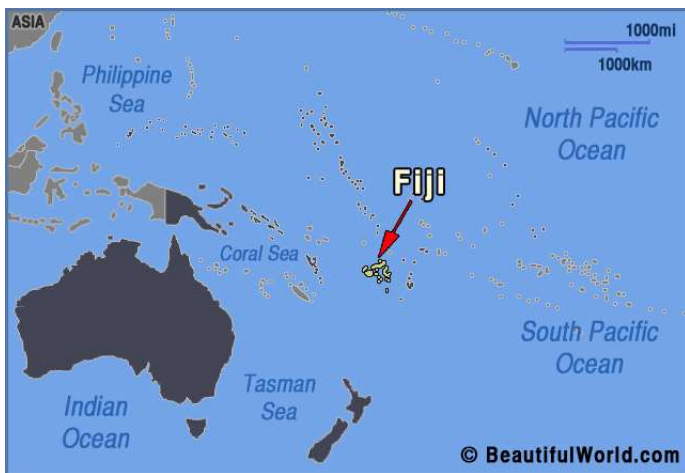
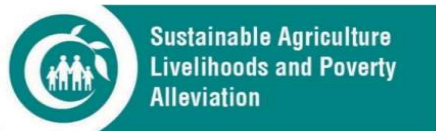


Fiji – Fiji experience in Regulating Hazardous Pesticides : Challenges & Opportunities

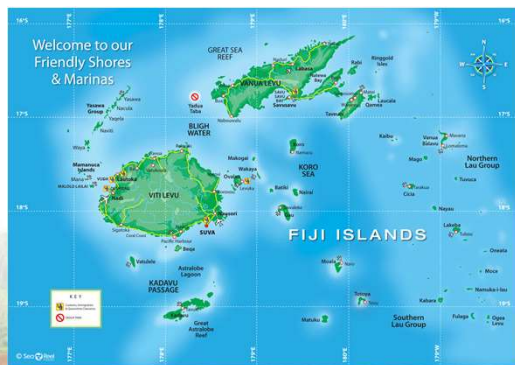
Mereia Fong
Registrar of Pesticide
Ministry of Agriculture
Fiji

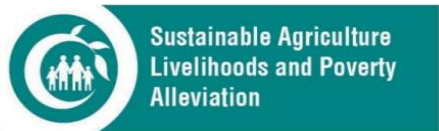




Introduction - Fiji

- ❑ Distance: 3,191.67 km from Sydney, Australia
- ❑ more than 330 islands—of which about 110 are permanently inhabited—and more than 500 **islets**, amounting to a total land area of about 18,300 sqm
- ❑ Has approx. 497,787 ha or 28% of land available for agricultural purposes.
- ❑ Agricultural land use is broken down into temporary crop land, fallow land, permanent crop land, pastures, coconuts, natural forest, planted forest and non-agricultural land.
- ❑ The highest percentage of actual land use (37%) is for permanent crops followed by pastures (19%) and natural forest (17%).
- ❑ Agriculture, which was once a major stronghold of Fiji's economy, now comprises only 8.9% of the nation's GDP.
- ❑ More than three-quarters of all Fijian households used to engage in agricultural-related activities, but now many of those workers have switched over to the growing service industry.





Pesticide Act 1971



PESTICIDES ACT 1971 ▶

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PESTICIDES ACT 1971



- + **PESTICIDES ACT 1971**
- + Subsidiary Legislation

Last Updated: 3 December 1976

Table of Amendments

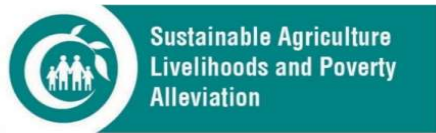
Pesticides Act 1971 (No 41 of 1971) commenced on 1 April 1972, as amended by:

Amending Legislation	Date of Commencement
Pesticides (Amendment) Act 1976 (No 32 of 1976)	3 December 1976





Food & Nutrition Security



Sustainable Agriculture
Livelihoods and Poverty
Alleviation



Climate Risk, Resilience
and Sustainable Land
Management



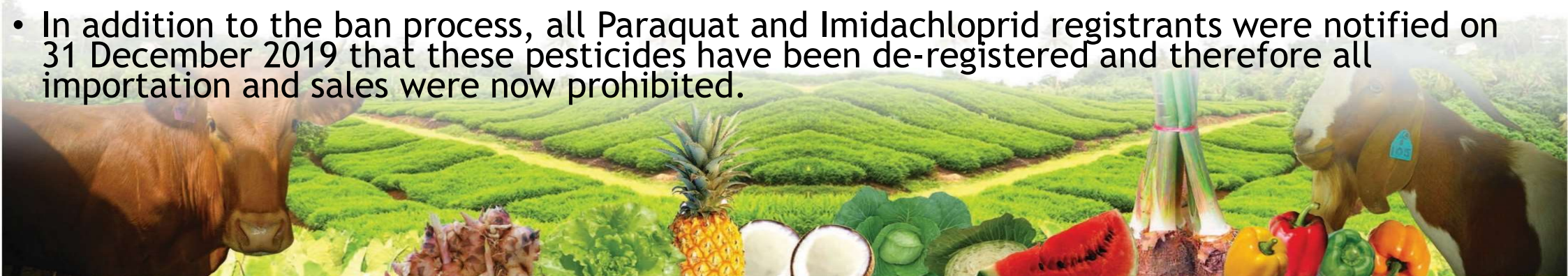
Commercial Agriculture
Development



Quality Public Sector
Performance and Service
Delivery

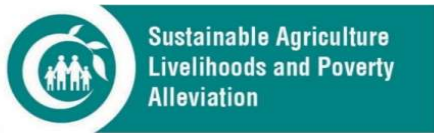
Ban of Paraquat and Neonicotinoids (Imidacloprid)

- August/Sept. 2019 - Policy paper drawn up and a Parliamentary paper for approval
- August 2019 - meeting with all Registrants to inform them of intention
- On the 9th of October 2019, the Minister for Agriculture & the Permanent Secretary for Agriculture in a press release - Government will ban all importations and sales of Paraquat and Imidacloprid insecticides as of 1 January 2020. This is in recognition of the negative effects of these pesticides on human health, the environment and on our ecosystem.
- On 26 Nov. an advertisement was placed in the local newspaper inviting the general public for written submissions and to attend organized public meeting and consultations across Agricultural offices in Fiji. The main objective is to work together with all stakeholders to establish strengthened administration, control and responsible usage of pesticides in Fiji and the way forward.
- In addition to the ban process, all Paraquat and Imidachloprid registrants were notified on 31 December 2019 that these pesticides have been de-registered and therefore all importation and sales were now prohibited.





Food & Nutrition Security



Sustainable Agriculture
Livelihoods and Poverty
Alleviation



Climate Risk, Resilience
and Sustainable Land
Management



Commercial Agriculture
Development



Quality Public Sector
Performance and Service
Delivery

How were there 2 pesticides important to Fiji's Agriculture?

Paraquat

- Commercial farming Taro and Kava
- General weed control in and around farms, roadside, subsistence farming

Imidacloprid (Imidacloprid; Confido, Farmer's Chloprid, Sunchloprid and Glomacq Imidachloprid.

- Control of taro beetle
- Control of Aphids on fresh exported commodities



Why were they banned from Fiji?

Paraquat

- ❑ Health effects:
- ❑ Acute toxicity:
- ❑ Chronic toxicity General:
- ❑ Environmental effect:
- ❑ Agroecological disruption Soil organisms: toxic to some soil fungi and bacteria, and increases populations of some soil pathogens.
- ❑ Resistance: 22 different species of weeds in 13 countries have become resistant to paraquat.
- ❑ Environmental fate and contamination
 - ❑ Soil: binds strongly to soil particles and tends to remain strongly bound for a long time.
 - ❑ Aquatic: in water it is adsorbed on to particles and sediment. It has been found in surface waters, drinking water, and in groundwater although it is generally believed to be immobile in the soil and not to leach to groundwater.
- ❑ Paraquat is now banned in over 40 countries, including the European Union (2007) and Switzerland- Syngenta's (paraquat manufacturer) home country, because of its extreme toxicity and adverse health effects.

Imidacloprid

- ❑ Concerns were raised by that Neonicotinoid pesticides used by farmers in Fiji to control insect pests such as aphids, thrips and dalo beetle have detrimental effect on the population of bees.
- ❑ Being a systemic insecticide, Imidacloprid spreads to the nectar and pollen of flowering crops.
- ❑ More than 80% of food crops require pollination but the insect population that pollinates have collapsed and many countries have been taking various measures to counteract the decline.
- ❑ Neonicotinoid (Imidacloprid) insecticides are harmful to bees as they are systemic chemicals that are absorbed into the plant system.
- ❑ When applied to plants weeks prior to flower bloom, Neonicotinoid can contaminate pollen and nectar which are toxic to bees that feed on it.
- ❑ Bees that encounter these pesticides contaminate the beehive and it affects their navigation
- ❑ Traces of Neonicotinoids have been found in honey

Wide Media Coverage

Home / mailLife News / News / Total Ban on Paraquat from 2020



TOTAL BAN ON PARAQUAT FROM 2020

Posted by: Darshika Raj | October 11, 2019 | In News | Comments Off on Total Ban on Paraquat from 2020

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The import, sale and use of the herbicide Paraquat and the insecticide Imidacloprid will be banned in Fiji from January 1st 2020.

This is in recognition of the negative effects of these substances on human health and the environment.

Minister for Agriculture, Mahendra Reddy announced that these chemicals are being banned due to their

PARAQUAT AND IMIDACLOPRID PESTICIDE BANNED FROM 1ST JAN 2020

11/10/2019



nosebleeds, irritation, and burns to the skin and other parts of the body.

"The World Health Organization has classified the toxicity level of Paraquat as Class II which is moderately hazardous; but there is a notion to believe it should be among the Class I because of its acute toxicity, delayed effects and the lack of an antidote," said Minister Reddy.

"Exposure, even to relatively low doses, during critical periods in childhood, may adversely affect the development of brain functions and it has been found to also cause cancer and decreases testosterone," he added.

NEWS

Farmers warned to abide with the ban



Koroï Tadulala
Multimedia Journalist
ktadulala@fbc.com.fj | @KoroïFBCNews

JANUARY 9, 2020 12:45 PM



THE AGRICULTURE MINISTER HAS WARNED THAT THE GOVERNMENT WILL CONFISCATE PRODUCE FROM FARMERS WHO DON'T ABIDE BY THE BAN ON PARAQUAT AND INSECTICIDE IMIDACLOPRID.

Paraquat and imidacloprid: Fiji to ban weedicide and insecticide

READING TIME 1 MIN | CHRISTIAN FERNSBY | October 11, 2019

[Tweet](#) [Share](#)

The Fijian government decided to ban the use of paraquat, insecticide and imidacloprid from January 2020.



NEWS

Banned pesticides no longer available in shops



Koroï Tadulala
Multimedia Journalist
ktadulala@fbc.com.fj | @KoroïFBCNews

SEPTEMBER 16, 2020 6:20 AM



THE MINISTRY OF AGRICULTURE HAS CONFIRMED THAT BANNED PESTICIDES WHICH ARE PARAQUAT AND IMIDACLOPRID ARE NO LONGER AVAILABLE IN ANY SHOPS IN FIJI.

Consultations:

- On Thursday 26 November an advertisement was placed in the local newspaper inviting the general public for written submissions
- Main objective : is to work together with all stakeholders to establish strengthened administration, control and responsible usage of pesticides in Fiji and the way forward.
- When the team arrives at a venue, registration is done and once all formal introductions conducted, the session began with the reminder that these pesticides were now banned.
- Participants are given the Ban of Paraquat (Annex 1) and Ban of Imidacloprid (Annex 2) fact sheets both in English and iTaukei language and the lists of registered pesticides in Fiji (that was advertised - Annex 3) and discussions were based on these three documents.
- Farmers and the general public are also reminded of the safe use of pesticides and safe disposals of containers.
- All comments were recorded and durations of discussions were between 2-3 hours with photos taken and compiled (Annex 4).



Naqarawalu, Taveuni



Labasa



Seaqaca



Dreketi



Navua



MoA HQ, Suva



Nadi



Lautoka

1. Participants

There were altogether 390 participants in these consultations, 50% of which were farmers (Figure 1). Other participants included staff of the Ministry, Pesticide registrants, and Pest control operators, pesticide retailers and students of USP and FNU that were on work attachments at various Agriculture offices. The consultations were conducted on 22 locations around Viti Levu, Vanua Levu including Taveuni (Table1); and the total number of attendees were: 164 from the Central Division, 92 Western Division and 134 from the Northern Division.

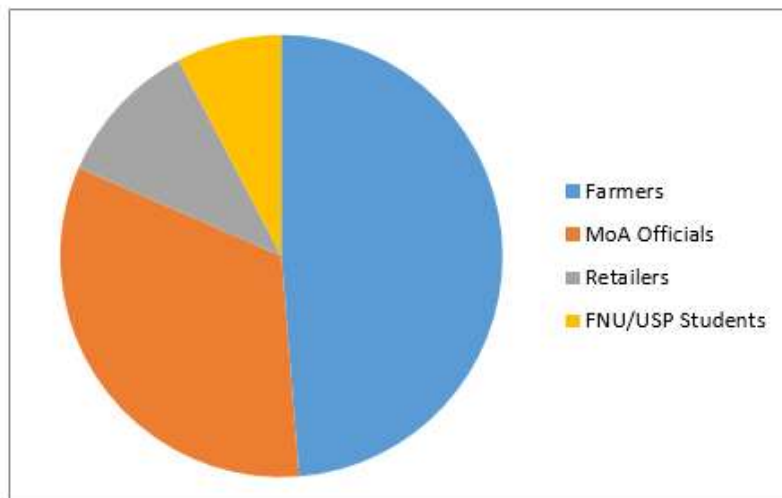


Figure 1: Participants included all pesticide stakeholders and 50% were farmers

Table 1: Locations of the consultations and number of participants (List of participants - Appendix 5)

	Locations	Dates	Number of participants	No. of Resource Person
Central Division - 164				
1.	<u>Koronivia</u> Research Station Conference Room	16/8/2019	9	7
2.	<u>Koronivia</u> Research Station Conference Room	26/11/2019	4	2
3.	<u>Lakena</u> Extension Office	2/12/2019	13	3
4.	Ministry of Agriculture Head office, <u>Raiwaqa</u>	4/12/2019	21	4
5.	Ministry of Agriculture Head office, <u>Raiwaqa</u>	12/02/2020	29	4
6.	<u>MoA</u> Conference room, <u>Korovou</u>	21/01/2020	27	5
7.	<u>Nayavu</u> District Office, <u>Nayavu, Tailevu</u>	21/01/2020	21	5
8.	<u>Serua/Namosi</u> Provincial Hall - <u>Navua</u>	09/12/2019	40	3
Western Division – 92				
9.	<u>Mahen's</u> Export Packhouse, <u>Bilalevu Sigatoka</u>	06/01/2019	22	2
10.	<u>MoA</u> Extension Office Conference Room, <u>Ba</u>	9/12/2019	10	2
11.	<u>MoA</u> Extension Office Conference Room, <u>Lautoka</u>	9/12/2019	22	2
12.	<u>MoA</u> Extension Office Conference Room, <u>Nadi</u>	11/12/2019	15	3
13.	<u>MoA</u> Extension Office Conference Room, <u>Tavua</u>	3/12/2019	17	3
14.	<u>MoA</u> Extension Office Conference Room, <u>Rakiraki</u>	3/12/2019	6	3
Northern Division – 134				
15.	<u>Waivevo</u> Community Hall	3/2/2019	21	3
16.	<u>Jimman's</u> Residence, <u>Qarawalu, Taveuni</u>	3/2/2019	28	3
17.	<u>Vuniuto</u> village Hall, <u>Taveuni</u>	3/2/2019	40	3
18.	<u>MoA</u> Extension Office Conference Room, <u>Savusavu</u>	4/2/2019	6	3
19.	<u>MoA</u> Extension Office Conference Room, <u>Labasa</u>	3/2/2019	11	3
20.	<u>MoA</u> Extension Office, <u>Seaqaga</u>	3/2/2019	12	3
21.	<u>Dreketi</u> Irrigation Training Centre	4/2/2019	14	3
22.	<u>MoA</u> Extension Office, <u>Nabouwalu</u>	5/2/2019	5	6
Total number of participants			390	

Main Areas of Discussion

1. Agreement to the ban

- Participants were asked if they approve or disapprove of the ban. Amongst farmers and 40% did not agree another 40% of them agreed while 20% did not participate. The first group to be consulted in August 2019 was the Pesticide registrants. Although most were taken by surprise, there was not much resistance and all had agreed that the ban was envisaged.
- There were also a number of pesticides that were recommended to be banned during these meetings and they are Lannate, Malathion, Glyphosate, Diazinon and Orthene. Reasons behind these proposed bans are due to the pesticides very strong pungent odor and its high toxicity.
- Other comments on the ban were:
- Paraquat is used especially in large commercial dalo and pineapples farms as finding labours to carry out weeding were difficult and also expensive.
- Paraquat are used by many not only for weed control in farms, it is also used to control weeds along roadside, farm borders, outside the village boundaries and along drains.
- Pest control operators raised concern for the ban of Imidacloprid pesticides since these operators uses these insecticides indoors and around buildings for the control of household pests and does not affect the environment and bees. They were informed that ALL Imidacloprid has been banned and this is mandatory.
- Farmers preferred that the consultations were conducted before the ban so they can be heard to allow them to lobby.
- Farmers were also concerned that more pesticide ban could be on the way. They were frustrated that although the Ministry is promoting commercial farming, at the same time these bans are in place

Other Areas of Discussion

1. Ban of Imidacloprid
2. Paraquat Ban due to Suicide
3. Alternatives of Paraquat and Imidacloprid
4. Process of Pesticide Registration
5. Monitoring/Inspection of pesticides
6. **Improvement in pesticide labels**
7. Promotion of organic farming

Issues concerning the Ministry of Agriculture

- Commercial farmers facing big challenges with banned pesticides as its affecting the production
- Improvement on service delivery required from MoA. Farmers need more awareness and training by MoA Research Officers to guide farmers to overcome challenges. Farmers need trained officers with expertise to address their issues such as pesticide use.
- The reality of Agriculture to people of Fiji. Agriculture and suicide should not be directly related as there are many other ways to control suicide. Farmers involved in Agriculture past 40yrs. MOA should have plan in place to assist farmers, encourage new generation into farming and assist existing farmers. Currently MOA is taking all possible approaches however it needs to be further improved. Elaborated on the reality of farming in Fiji. Income generation in rural is declining and we need to take immediate actions.
- The Honorable Prime Minister launched the sustainable Agriculture Initiative but to date Agriculture has not taken any major action. Organic pesticides introduced by AgChem Ltd that will be given to Research for testing. R&D required and close collaboration.
- Pesticides have negative effect, options available through research on alternatives. Solution - devote time, effort and money for research to find best Management options with energetic research scientists.
- Importance of recommended rate. Research should be meaningful with impact.
- Pesticide important with respect to export and import of fresh fruits and vegetables in Fiji. And this is particular important to ensure that residual levels are according to the requirement of importing countries.
- BAF works closely with FIRCA and MoA at the port of entries to monitor importation of pesticides in Fiji. Supports MoA commitment and work closely.
- UN has declared that 2020 is the International year of Plant Health as they have recognized the importance of plant health to address food security.

Assurances by MoA during Consultations

- Need to find solutions collectively to come up with best package of practices. Evidence based research finding to back up ban and understanding the consequences.
- MOA way forward, focus on commercial Agriculture but in sustainable way
- Pesticide residue analysis- 2years project with IAEA to analyze and quantification of Pesticide residues.
- Fiji does not have facility to for proper disposal of these banned pesticides therefore; farmers can utilize stocks that have been purchased. Education and awareness is way forward with farmers and MoA.
- Pesticide cycle impact to human health and environment. Production of Pesticide and its uses, with food safety point of view - codex, MoA looking into sustainable Agriculture and food safety. This is important for export. Presence of Pesticide in soil and its long term impact on production.
- The need to strengthen climate resilient agriculture. Research has critical role to play in development of package of practices.
- Consultation and dialogue is important for any change. Way forward, consultations will continue with complete understanding of concerned groups using the consultative and participatory approach.

Opportunities

- Although most farmers did not agree with the paraquat ban due to its wide and frequent use, they have accepted that more pesticides will be banned in future. Farmers were reminded that this change is here to stay and the Ministry has identified alternative herbicides that can be used. There were more discussions of the ban of paraquat but very little comments on the ban of Imidacloprid.
- Currently the Ministry is still using the 1971 Pesticide Act as a guideline when issuing approvals for pesticide registrations. There is a need to hasten the process of reviewing the Act which is currently being reviewed by the Office of the Solicitor General. The main focus on this new Bill is the formation of a committee to approve registrations. At the moment, this is mandate only by the Pesticide Registrar based at the Koronivia Research Station.
- Many countries have banned the use of a number of pesticides due to their highly toxic levels and many have resorted to consuming only organically grown food. This is important for Fiji as we export fresh fruits and vegetables and guidelines and standards are issued by importing countries on minimum residual levels (MRL). The country could lose these markets if pesticides are misused and pesticides are at unacceptable levels. Nowadays, there is a healthier option of organic farming and more consumers both for the local market and for export are taking that option.
- Farmers need to understand that all pesticides are poisonous and although symptoms of poisoning may not be visible, they do affect the health of users with continuous misuse. After the consultations the team will continue to advocate the safe use of these pesticides.
- Therefore, it is important that Fiji is at par with international standards on importation of pesticides, registrations, sales and most importantly the usage. This exercise have been geared up to access the current system and to improve it so that our health, natural resources and environment are safe guarded without hindering food production and food security.

Thank you!

