



Iraq is a country in Western Asia. Iraq's official statistical reports give the total land area as 438,446 .population of Iraq is 38 million and 124 thousand and 182 people according to population projections for the year 2018, the main production of Iraq are dates , wheat , rice vegetables and fruits The top plant exports is dates.

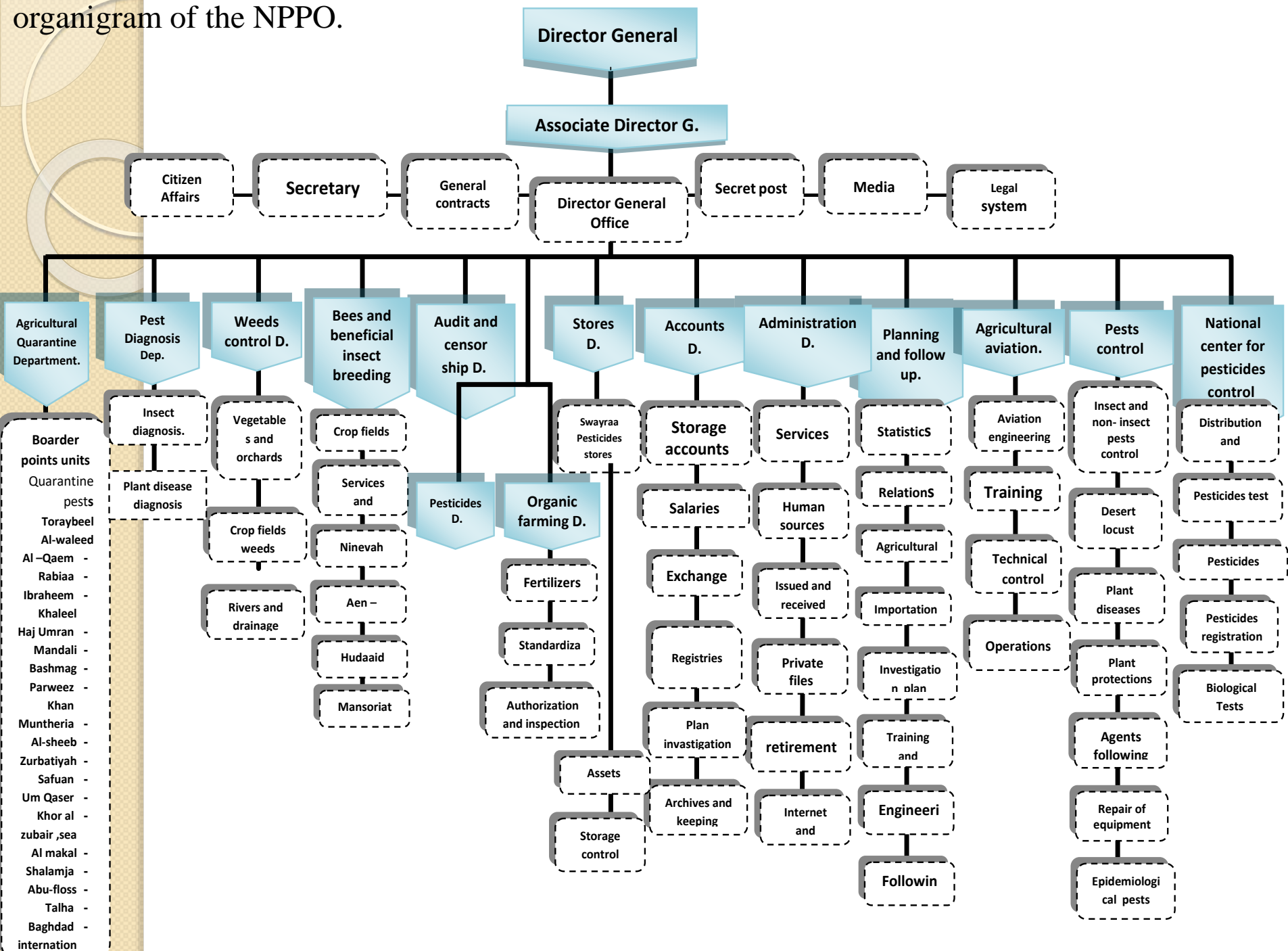


**The Plant Protection directorate is one of the formations of the Iraqi Ministry of Agriculture and it's represent the NPPO in Iraq
Established in 1928**

organigram of the NPPO.

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graph TD
    DG[Director General] --> ADG[Associate Director G.]
    ADG --> CA[Citizen Affairs]
    ADG --> Sec[Secretary]
    ADG --> GC[General contracts]
    ADG --> DGO[Director General Office]
    ADG --> SP[Secret post]
    ADG --> Media[Media]
    ADG --> LS[Legal system]
    
    DGO --> AQD[Agricultural Quarantine Department.]
    DGO --> PDD[Pest Diagnosis Dep.]
    DGO --> WCD[Weeds control D.]
    DGO --> BBI[Bees and beneficial insect breeding]
    DGO --> ASD[Audit and censorship D.]
    DGO --> SD[Stores D.]
    DGO --> AD[Accounts D.]
    DGO --> ADM[Administration D.]
    DGO --> PFD[Planning and follow up.]
    DGO --> AA[Agricultural aviation.]
    DGO --> PC[Pests control]
    DGO --> NCC[National center for pesticides control]
    
    AQD --> BPU[Boarder points units]
    BPU --> QP[Quarantine pests]
    QP --> TB[Toraybeel]
    TB --> AW[Al-Qaem]
    AW --> R[Rabiaa]
    R --> I[Ibraheem]
    I --> K[Khaleel]
    K --> HU[Haj Umran]
    HU --> M[Mandali]
    M --> B[Bashmag]
    B --> P[Parweez]
    P --> KH[Khan]
    KH --> MU[Muntheria]
    MU --> AS[Al-sheeb]
    AS --> Z[Zurbatiyah]
    Z --> S[Safuan]
    S --> U[Um Qaser]
    U --> K2[Khor al]
    K2 --> Z2[zubair ,sea]
    Z2 --> AM[Al makal]
    AM --> SH[Shalamja]
    SH --> AB[Abu-floss]
    AB --> T[Talha]
    T --> B2[Baghdad]
    B2 --> INT[Baghdad internation]
    
    PDD --> ID[Insect diagnosis.]
    ID --> PDD2[Plant disease diagnosis]
    
    WCD --> VO[Vegetable s and orchards]
    VO --> CFW[Crop fields weeds]
    CFW --> RD[Rivers and drainage]
    
    BBI --> CF[Crop fields]
    CF --> S[Services and]
    S --> N[Ninevah]
    N --> A[Aen -]
    A --> H[Hudaid]
    H --> M[Mansoriat]
    
    ASD --> PD[Pesticides D.]
    ASD --> OFD[Organic farming D.]
    OFD --> F[Fertilizers]
    F --> S2[Standardiza]
    S2 --> AI[Authorization and inspection]
    AI --> AS[Assets]
    AS --> SC[Storage control]
    
    SD --> SPS[Swayraa Pesticides stores]
    
    AD --> SA[Storage accounts]
    SA --> S3[Salaries]
    S3 --> E[Exchange]
    E --> R[Registries]
    R --> PI[Plan invastigation]
    PI --> A2[Archives and keeping]
    A2 --> S4[Storage control]
    
    ADM --> S5[Services]
    S5 --> HS[Human sources]
    HS --> IR[Issued and received]
    IR --> PF[Private files]
    PF --> R2[retirement]
    R2 --> I2[Internet and]
    
    PFD --> ST[StatisticS]
    ST --> R3[Relations]
    R3 --> A3[Agricultural]
    A3 --> I3[Importation]
    I3 --> IP[Investigatio n plan]
    IP --> T2[Training and]
    T2 --> E2[Engineeri]
    E2 --> F2[Followin]
    
    AA --> AE[Aviation engineering]
    AE --> T3[Training]
    T3 --> TC[Technical control]
    TC --> O[Operations]
    
    PC --> INIP[Insect and non- insect pests control]
    INIP --> DL[Desert locust]
    DL --> PD2[Plant diseases]
    PD2 --> PP[Plant protections]
    PP --> AF[Agents following]
    AF --> RE[Repair of equipment]
    RE --> EP[Epidemiologi cal pests]
    
    NCC --> D[Distribution and]
    D --> PT[Pesticides test]
    PT --> P3[Pesticides]
    P3 --> PR[Pesticides registration]
    PR --> BT[Biological Tests]
  
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Number	Agricultural Quarantine divisions	Type	Status	Sharing borders
1	Al-Waleed (Tanf)	land	Non-Active	Syria
2	Al-Qaim	land	Non-Active	Syria
3	Rabiaa	land	Non-Active	Syria
4	Turaybeel	land	Active	Jordan
5	Ibrahim Alkhalil	land	Active	Turkey
6	Haj Umran	land	Active	Iran
7	Bashmaq	land	Active	Iran
8	Parweez Khan	land	Active	Iran
9	Al-Muntheria	land	Active	Iran
10	Mandali	land	Active	Iran
11	Zurbatiah	land	Active	Iran
12	Al-sheeb	land	Active	Iran
13	Shalamche	land	Active	Iran
14	Ar' ar	land	Non-Active	Saudi Arabia
15	Safwan	land	Active	Kwait
16	Talha	land	Active	CQU* south of Iraq
17	Um Qasr	Sea	Active	-
18	Abu floos	Sea	Active	-
19	Al-Maqal	Sea	Active	-
20	Khor AlZubair	Sea	Active	-
21	Baghdad International Airport(BIA)	Air	Active	-
22	Basrah International Airport	Air	Active	-
23	Najaf International Airport	Air	Active	-
24	Central Post Division		Active	-
24.A	Baghdad Aljededah Post Unit		Active	-

Phytosanitary legal framework

- 1- Agricultural Quarantine Law No. (76) For the year 2012.
- 2- The Registration and Certification of Pesticides Law No. (47) For the year 2012.
- 3- Regulation of Trading of Agricultural Substances Law No. (46) of 2012

cases of surveillance

Annually we carried out many surveillance to the important pests

- ❖ RPW *Rhynchophorus ferrugineus*
- ❖ dubas bug *Ommatissus binotatus lybicuslybicus*
- ❖ lesser date moth *Bactrocera amydraula*
- ❖ peach fly *Bactrocera zonata*
- ❖ fruit fly *ceratitis capitata*
- ❖ tomato leaf miner *tuta absoluta*
- ❖ wheat rust

We have concerns of interring fall worm army and *Xylella fastidiosato* to the country therefor we have monitoring program for both pest

emerging pests

- ❖ tomato leaf miner *tuta absoluta* 2010
- ❖ peach fly *Bacrocera zonata* 2015

Due to the favorable environmental conditions this year some agricultural pests emergence epidemically in Iraq. and had a negative impact on agricultural production

- ❖ Early and Late blight on potatoes and tomatoes
- ❖ Yellow rust (wheat stripe rust) and orang rust (Leaf rust)



Symptoms of early and late blight infections





Notable case studies related to surveillance

Red Palm Weevil(RPW)

Rhynchophorus ferrugineus (Oliv.) In
Iraq

Introduction

Based on actual field monitoring data for more than twenty (20) years a surveillance program was initiated on **1993 by NPPO/ MoA** using commercial pheromone traps on selected sites of Iran and Kuwait borders areas with no indication of the existence of the pest.

Unfortunately, on Dec. 2015 two spots of infestations of Red Palm Weevil were detected by team of Basrah agriculture directorate (BAD) in Safwan Province/ Basrah about 3Km from Iraq- Kuwait borders (see infestation map for details).

Examinations of the collected samples by Iraqi Museum of Natural History confirm it as RPW. Estimated No. of date palm at the first site of infestation were about. 500 trees and about 25% were infested whilst at the second site (about. 6Km NE of the first site) there was only single infested palm tree.



Management Program

1- Legislative Measures

- Since (RPW) *R. ferrugineous*(Oliv.) ***has been listed as a Quarantine Pest according to the Agriculture Quarantine National Law # 76/2012 and the ongoing Quarantine Regulations the Basrah's Governorate, Safwan Province and Site of Infestation were declared as a "Quarantine Area".***
- Prohibition of any transfer of offshoots, whole palm tree between Basrah and other governorates.
- Informing the local government to instruct its local authorities to start enforcing Interior Agriculture Quarantine by banning the transfer of all Offshoots and date palm trees in and out the governorate.
- Requesting the ministries of Internal & Defense to forbid the transfer of Offshoots & Date Palms consignments between all Governorates until the Eradication activity was accomplished.

- Teams of researchers and field officers from PPD & BAD have been formed to develop and implement surveillance, management and eradication programs to control the pest.
- The field team have developed a contingency work plan which consisted of different stages and steps begin from the point of Detection & Registration to the Eradication Phase. The conducted activities included the following:
 - Assessment at the infested site the % infestation and intensity of infestation.
 - Spraying the whole infested orchard on regular bases with the recommended systemic & non-systemic insecticides.
 - Assessment of their efficacies by chopping and dissecting a randomly treated palm trees and modifying the treatment program according to the obtained results.
 - Develop and implement an immediate surveillance program on all nearby orchards and suspected recreation areas.
 - Conduct a precautionary (preventative) spraying program on all Safwan' s district date palm orchards.

- **Conducting another special RPW detection program for all provinces bordering Iran, Kuwait and Saudi Arabia.**
- **Conducting field research on the efficacy of selected systemic insecticides using different methods of applications such as Spraying, Injection and Soil Drainage.**
- **Evaluating two types of Pheromones; Wet & Dry Traps system for monitoring and detection.**
- **Performing a variety of activities including Raising Farmer's Awareness and field training for all Plant Protection & Extension officers belonging to BAD and all Safwan's Agriculture Branches.**
- **Preparation and distribution of a technical Pamphlet on the nature of the pest and field's guidance on its control.**



**Symptoms & Severity of Infestations of
RPW Basrah/ IRQ 2015**



Training Programs



Training & Awareness Raising by newsletter



**Control of Infestation, Spraying,
Injection and Soil Drainage.**



**Control of Inter- Governorates Transfer
of Offshoots Through Enforcement of
Quarantine Law.**

non-compliance

On Dec.17th2015 the MoA held the First National Workshop on RPW and invited all affiliated national authorities such as Ministries of Higher Education & Scientific Research, Science & Technology, and Directors of Agriculture Directorates from 13 Governorates, Farmer's National Union, and representatives from Iraqi National Assembly, Prime Minister Office and National Media.

The workshop was sponsored by the Minister of Agriculture

Outcome

- 1 **Based on the efficacies data of selected insecticides; the field's team concluded that Application of Insecticides is not the best solution to get rid of the RPW in Iraq. because data obtained have indicated most insecticide's efficacy didn't exceed 90% which means the Potential Risk of Spread of RPW to another Areas is Extremely High. Thus, further Determinate Action need to be taken.**
- 2 **Although Preliminary Surveillances didn't detected any Further infestation sites but MoA Believes That the Possibilities of other Infested sites are Still High. Since there are Always a Weakness on the Commitments of all stakeholders to the Implementation the Quarantine Law & Regulations as well as Smuggling. Thus stringent measures need to be taken to prohibit its reoccurrence again.**

Thus, MoA and NPPO Team Have Concluded that the Only Solution to prevent the potential spread of RPW is through the “Eradicate of the Whole Infested Sites ” through the Enforce the Agriculture Quarantine Regulations No.76/2012. Consequently, MoA took all the Necessary measures to Uproot, Chopped, Burn and Bury All the Palm Trees in on The Infested Site.



Different Steps of the Eradication of the Infested Date Palm Trees Safwan/Basrah/IRQ –

Eradication



challenges

1-lake the infrastructure.

2-lake the awareness between the farmers and food producers.

3- The difficulty of applying phytosanitary standards due to lack of infrastructures

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suggestions

- 1- International standards for phytosanitary measures can be understood by held a workshop at regional level
- 2- Help developing country to established pest free area
- 3- Help developing country to conducted PRA
- 4- collaboration regionally or globally in forecast emerging pests and how undertake fast action to prevent the damage
- 5-Implementation e-Phyto in developing countries to facilitate trade.
- 6- Implementation of regional projects to assist in the application of phytosanitary standards and access to global markets.
- 7- Exchange of information on invasive pests

Thank you for your
attention

