

AL-QUDS UNIVERSITY
Deanship of Graduate Studies

**KNOWLEDGE, ATTITUDE AND PRACTICE AMONG
FARM WORKERS APPLYING PESTICIDES AT
CULTIVATED AREA IN JERICHO DISTRICT**

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ABSTRACT

Pesticides cause a major environmental problem. The excessive uses of pesticides leave chronic and acute toxic impacts on human health. The present cross-sectional study is intended to assess knowledge, attitude, practice and prevalence of toxicity symptoms related to pesticides among farm workers who apply spraying in the current agricultural year at the cultivated area in Jericho district. Interview questionnaire was used for this purpose.

Knowledge and attitude of interviewed farm workers were relatively high. Despite that, a high percentage of farm workers do not practice the wearing of protective gear and they re-enter their field at the same day of spraying. Most of the toxicity symptoms that are related to pesticides appear as a result of this unsafe behavior. In view of the present study, the most common toxicity symptoms that farm workers are likely to have were burning sensation in eyes and face, itching and skin irritation, cold/breath lessens/chest pain, headache, dizziness and watering eyes. In addition, a considerable number of farm workers believe that their bodies develop immunity against the adverse health effects of pesticides.

معرفة، توجه وسلوك عمال الزراعة في مناطق الزراعة المكثفة في منطقة أريحا

نحو استخدام الآفات الزراعية

يولد استخدام مبيدات الآفات الزراعية العديد من المشكلات البيئية والصحية، بحيث يسبب الاستخدام الزائد والمتواصل أثرا سلبيا مؤقت أو دائم على صحة الإنسان. تقوم الدراسة الحالية على اخذ شريحة ممثلة للمزارعين المتواجدين في مناطق الزراعة المكثفة في منطقة أريحا وذلك لهدف قياس معرفة وتوجه وسلوك هؤلاء المزارعين وفيما إذا هم يعانون من أعراض مرضية تعود لاستخدام الآفات الزراعية، وذلك عن طريق توجيه الأسئلة المباشرة لهم حيث كانت الاستمارة التي تحوي أسئلة لها علاقة بموضوع البحث هي أداة القياس في هذه الدراسة.

معرفة وتوجه عمال الزراعة نحو استخدام المبيدات كانت نوعا ما عالية، إلا أن سلوك العمال كان مغايرا، حيث أن نسبة كبيرة من العمال لا تقوم بلبس الملابس الواقية من التسمم خلال عملية الرش، ونسبة عالية أخرى تقوم بدخول الحقل في خلال اليوم الأول من الرش. مما أدى إلى ظهور أعراض سمية نتيجة استخدام الآفات الزراعية لدى نسبة كبيرة من عمال الزراعة، حيث تنوعت هذه الأعراض على النحو الآتي:

حروق في العين والوجه، حكة وتوهج في الجلد، عدم القدرة على التنفس مصاحبة لالام في الصدر، وجع راس،

دوخة وتدميع العينين.

بالإضافة إلى ذلك هناك نسبة كبيرة من عمال الزراعة لديهم اعتقاد بأنه نتيجة لاستخدامهم المستمر للآفات الزراعية قد تكونت لديهم مناعة طبيعية ضد الآثار الجانبية لهذه الآفات الأمر الذي يزيد الوضع سوءاً. من خلال هذه الدراسة هناك حاجة ماسة لبناء مركز للسمومية يعنى بتقديم الخدمات الصحية للمزارعين في حالة الحاجة إليها. هناك حاجة لقيام دراسات حول متابعة الحالة الصحية للمزارعين اللذين توجد لديهم الأعراض الأولية للتسمم من استخدام الآفات الزراعية، كما وهناك حاجة لوجود دراسات تعنى بمعرفة الناس العاديين حول موضوع الآفات الزراعية بالإضافة إلى ذلك يجب توعية المزارعين إلى الطرق البديلة عن استخدام الآفات الزراعية للتقليل من الآثار الصحية الوخيمة لهذه الآفات.

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PROBLEM STATEMENT, MAIN AIM, SPECIFIC OBJECTIVES

Problem Statement: The increasing use of pesticides in agriculture accompanied with the absence of effective control measures, has given raise to growing concern about the magnitude of the knowledge, attitude and practice of farm workers toward these chemicals, and about the magnitude of health risk of farm workers who are exposed to these chemicals at cultivated area in Jericho district.

The **Main Aim** of this cross-sectional study is to assess knowledge, attitude and practice (KAP) among farm workers applying pesticides at cultivated area in Jericho district. So as to predict and prevent health impact of pesticides.

Specific Objectives:

- 1- To identify the type of pesticides found at cultivated area in Jericho district.
- 2- To assess awareness of the farm workers dealing with pesticides.
- 3- To assess practice of the farm workers dealing with pesticides.
- 4- To describe the major toxicity symptoms associated with the use of pesticides.
- 5- To recommend intervention policies to minimize hazards of pesticides.

Background

Jericho district is located on the eastern boundary of the West Bank. It extends from the Dead Sea in the south to the southern part of Fasayil in the north, and from the eastern slopes of the Jerusalem and Ramallah mountains in the west to the Jordan River in the east.

The district has an area of approximately 305,000 dunums. Of which 50,000 dunums are used for agricultural purposes. The projected population of Jericho for the mid year 2002 is 38,968 people (PCBS, 2000). While it has a desert climate, its abundant water sources give it the character of an Oasis. It is this character that makes it an important agricultural area, especially for fruits and vegetables (ARIJ, 1995).

Cultivated areas in the Jericho district cover approximately 24,194 dunums. Due to the limited rainfall combined with the hot weather, irrigated agriculture is dominant in the district. Intensive agriculture is practiced from October to May. The cultivated areas are concentrated in (Jericho) city, Dyouk (Ein ad Duyuk Al foqa and El Tahta), Nuwe'ma , and Al-Auja (Jericho Agricultural Station, 1994). The following paragraphs talk about the background of each of these areas:

Jericho City is the oldest city in the world, lies 250m below the sea level, with total area of around 45000 dunums of which 3838 dunums are used for building. This city is suffering from some problems like the shortage in money and worker resources that disturb the agricultural progress in it, and limit the use of agricultural area.