

# BIOCIDAL OCCUPATIONAL AND ENVIRONMENTAL HEALTH ASSOCIATION

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## WELCOME

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### **About Our Association**

- Today, due to many factors such as industrial development, technological advancement, changing lifestyles, urbanization, increasing waste, and population growth, there has been an increase and diversity in the dangers that threaten health.
- In order not to be defenseless against all kinds of newly emerging risks, protective systems must also be strong and active. The first rule for doing this is knowledge and education.

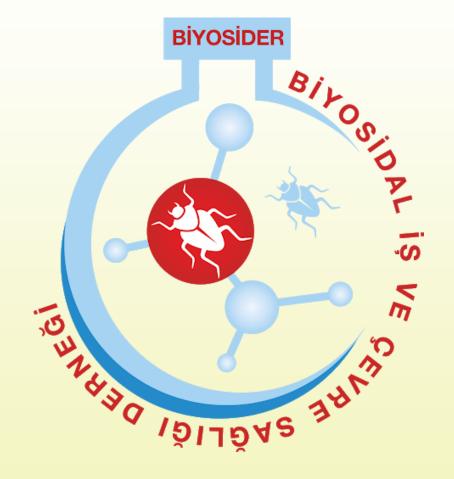
### **About Our Association**

• In our country, there has also been an increase in biocide diversity due to the transition to modern agriculture, progress and expansion in health services, and the emergence of different industrial sectors.

 In this context, many needs have arisen such as monitoring, evaluating, and implementing scientific developments related to the subject, informing the society correctly and scientifically, conducting scientific studies on the subject, educating both the society and the professionals in the field, and creating an analysis infrastructure.

### **BIYOSIDER**

Environmental Health Association was founded in 2015 under the presidency of Prof. Dr. Muhsin AKBABA with its academic staff, establishment purpose, actions, targets and the distinction of being the "first" in its field.



#### Our Vision

To be a part of national and international solutions for the society and to carry out scientific organizations and projects for the development of a sustainable living habitat in a healthier and more livable world.

#### **Our Mission**

- In order to improve the health of all individuals, especially vulnerable groups in the society we live in, starting from occupational and environmental health;
- To bring together employees who are devoted to "Public Health" for the Health of the Public, to ensure unity of power and goals with companies, public institutions, other NGOs working on this issue, and to increase the capacity of trained people,
- To provide services in line with rational, principled, responsible, respectful of human rights, environmentally sensitive, innovative approaches.



#### 2.Uluslararası Mesleksel ve Çevresel Hastalıklar Kongresi

4-8 Mart 2018



#### Uluslararası Mesleksel ve Çevresel Hastalıklar Kongresi

27-29 Mart 2017



#### 3. Uluslararası Biyosidal Kongresi

22-25 Kasım 2016



#### 2.Uluslararası Biyosidal Kongresi

9-13 Kasım 2015



#### Uluslararası Biyosidal Kongresi

19-22 Mart 2014

### **Our Congresses**





#### 5.Uluslararası Biyosidal Kongresi

5-7 Mart 2021



#### 4.Uluslararası Mesleksel ve Çevresel Hastalıklar Kongresi

5-8 Mart 2020



#### 3.Uluslararası Mesleksel ve Çevresel Hastalıklar Kongresi

3-7 Mart 2019



#### 4. Uluslararası Biyosidal Kongresi

25-29 Mart 2018



- https://biyosidal2024.org/
- It has been organized annually since 2014.
- It is supported by many institutions and organizations that play a major role in the international arena, such as the World Health Organization (WHO), Food and Agriculture Organization (FAO), Confederation of European Pest Management Associations (CEPA), International Association of Rural Health and Medicine (IARM).
- It was organized on 13-17 November 2024 with the participation of the competent authorities of the European Union member countries, universities, hospitals, municipalities, domestic and international sector representatives.





















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## **OUR FIELD WORKS**

#### Current Situation in Dealers Selling Pesticide Products (Adana-2015)

- It was conducted by face-to-face interviews with 50 pesticide sellers.
- 34% of the sellers do not follow legal developments.
- 53.1% do not participate in training programs.
- 56.2% do not use protective materials.
- 6% are exposed to the negative health effects of pesticides.
- 10.2% do not read the ingredients of the drugs they sell.
- 18.4% do not inform consumers.
- 88% state that there is no conscious use and there are too many unlicensed products on the market.

<sup>\*</sup>Ersin Nazlıcan, Necdet Aytaç, Hakan Demirhindi, Ramazan Azim Okyay, Hüseyin İlter. Knowledge, Attitude and Behavior of Dealers Selling Pesticide Products in Adana Province. 2nd International Biocidal Congress, Antalya, 9-13 November 2015.

# Current Situation in Dealers Selling Pesticide Products (Osmaniye-Ceyhan-Tarsus 2015)

- It was conducted by face-to-face interviews with 51 pesticide sellers.
- 17.6% of the sellers do not follow legal developments.33.3% do not participate in training programs.
- 68.6% do not use protective equipment.
- 9.8% are exposed to the negative health effects of pesticides.
- 3.9% do not inform consumers.
- 43.1% do not know the national poison information center number (114-UZEM).

<sup>\*</sup>Özgür Ersoy, Ersin Nazlıcan, Mehmet Gökdeniz, Hüseyin İlter, Muhsin Akbaba. Knowledge, Attitudes and Behaviors of Pesticide Sellers. 2nd International Biocidal Congress, Antalya, 9-13 November 2015.

# Pesticide Usage Habits of Households in Karataş District of Adana Province (2016)

- Of the 365 households included in the study, 327 (89.6%) had pesticides at home.
- Of these 327 households, 96.6% had insecticides, 14.1% had rodenticides, and 9.4% had herbicides.
- 51.4% stored pesticides in the kitchen, 19.3% in the bathroom, and 15.2% in the bedroom.
- 78.6% used pesticides in the kitchen, 56.3% in the bathroom, 55.7% in the toilet, and 51.1% in the bedroom.
- 15.9% of households stored pesticides in places accessible to children.
- 64.5% did not use any personal protection when applying pesticides.

<sup>\*</sup>Kurt B, Akbaba M, Başarılı MK, Demirhindi H, Ötegen VR. Pesticide Usage Habits of Households in Karataş District of Adana Province. 3rd International Biocidal Congress, 22-25 November 2016, Antalya, Proceedings Book.

#### Pesticide Use in Agricultural Practices (Malatya-2016)

- It was applied to 113 people registered with the Chamber of Agriculture in Akçadağ district and trained within the scope of good agricultural practice.
- 74.3% of the practitioners do not use pesticides consciously.
- 57.5% see themselves at risk of drug poisoning.
- 61.1% do not get examined at regular intervals.
- 94.7% do not know the national poison information center number (114-UZEM).
- 69.9% think that there is no antidote for pesticides.
- ➤ Practitioners;

knowledge and education levels are inadequate.

periodic health examinations are low.

<sup>\*</sup>Serdar Deniz, Muhsin Akbaba, Burak Kurt, Tufan Nayir, Mustafa Kemal Başaralı. Investigation of the Knowledge Levels of People Receiving Training on Good Agricultural Practices in Malatya Province on Pesticide Application. 3rd International Biocidal Congress, Antalya, 22-25 November 2016.

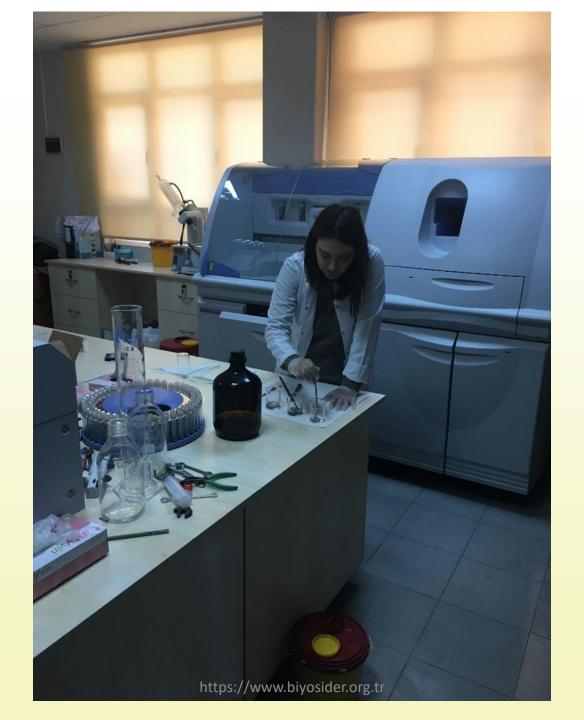
#### Investigation of Pesticide Residue and Acetylcholinesterase Enzyme Activity in Agricultural Workers in Ceyhan District of Adana Province (2018)

- 66 controls, 66 agricultural workers
- 95% of agricultural workers do not receive spraying training,
- 74% do not use any personal protective equipment,
- A total of 31 pesticide active substances were detected, at least one in the hair samples of 100% of agricultural workers,
- A total of 15 different pesticide active substances were detected in 94% of blood samples.

<sup>\*</sup>Saliha ÇELİK, Cukurova University Faculty of Medicine Department of Public Health Specialization Thesis



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# Research on Chromosomal Disorders in Agricultural Workers in Ceyhan District of Adana Province (2018)

- 35 agricultural workers who applied pesticides and 40 volunteers who were not exposed to pesticides were taken as reference.
- Chromosomal abnormalities were significantly higher in agricultural workers than in the reference group,
- When examined in an age-adjusted manner, the risk of chromosomal disorders was found to be 2.3 times higher in pesticide applicators than in the reference group.

<sup>\*</sup>Osman Demirhan, Muhsin Akbaba, Saliha Çelik, Nur Uslu, Nesrin Çetinel, Erdal Tunç

3rd International Occupational and Environmental Diseases Congress 3-7 March 2019 - Antalya





# Current Situation in Dealers Selling Pesticide Products (Mersin-2018)

- It was applied to 121 pesticide sellers via face-to-face interview method.
- 38.8% of the sellers do not follow the legal developments.
- 62.8% see themselves at risk of drug poisoning.
- 12.4% are exposed to the negative health effects of pesticides.
- 22.3% do not know the national poison information center number (114-UZEM).16.5% do not know the first aid algorithm in poisoning.
- 13.2% do not inform consumers.
- 20% do not think that pesticides are harmful to human health.
- Sellers;

Product content, development tracking, end user information is inadequate.

<sup>\*</sup>Onur Acar, Muhsin Akbaba, Volkan Recai Ötegen, Serdar Deniz. Evaluation of Knowledge, Attitudes and Behaviors Regarding Pesticides among Pesticide Sellers in Mersin Province. 4th International Biocidal Congress, Antalya, 25-29 March 2018.

# Living Conditions, Access to Health Services and Occupational Health and Safety Conditions of Seasonal Agricultural Workers in the Çukurova Region (Adana-2018)

- The findings of the study show that seasonal migrant agricultural workers in Turkey have inadequate working conditions, wages, accommodation, nutrition opportunities, health conditions and occupational health and safety conditions.
- This inadequacy negatively affects the quality of life of the workers, their use of health services, and occupational health and safety.

<sup>\*</sup>Öztaş D, Kurt B, Koç A, Akbaba M. Living Conditions, Access to Healthcare Services, and Occupational Health and Safety Conditions of Migrant Seasonal Agricultural Workers in the Çukurova Region. Journal of Agromedicine, 23:3, 262-269

## Knowledge Level, Attitude and Behavior of Farmers in Çukurova Region Regarding Pesticide Use (Adana-2018)

- In a study conducted on 420 seasonal agricultural workers in the Karataş district, it was determined that all workers used pesticides, but none of them received training,
- Only 26% of workers kept pesticides in a closed warehouse,
- Only 4% took used pesticide cans to special collection areas,
- 84% of workers knew that pesticides had negative effects on human health,
- 5% had a health problem related to pesticides,
- 1% had poisoning after pesticide application.

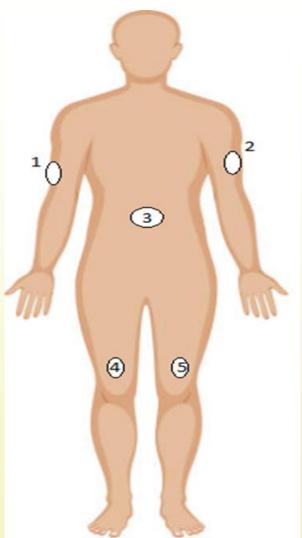
<sup>\*</sup>Öztaş D, Kurt B, Koç A, Akbaba M, İlter H. Knowledge Level, Attitude, and Behaviors of Farmers in Çukurova Region regarding the Use of Pesticides. BioMed Research International Volume 2018, Article ID 6146509, 7 pages

# Dermal Exposure Research in Active Pesticide Applicators Using the Patch Method (Adana-2019)

- 34 practitioners were included in the study.
- 11 types of pesticides were detected in the practitioners,
- Of these; It was seen that they were exposed to high levels of Chlorpyrifos,
- There is also a moderate risk for abamectin, buprofezin, difenoconazole and pyripyroxyfen,
- Personal protective equipment level was accepted as none in 97.2% of the practitioners.

<sup>\*</sup>Musa ŞAHİN, Cukurova University Faculty of Medicine Department of Public Health Specialization Thesis





### PROJECTS WE HAVE CONSULTED ON

# Pesticide Free Towns Project (2021)



Bu proje Avrupa Birliği tarafından finanse edilmektedir. This project is funded by the European Union.

Our association provided consultancy services for the Pesticide Free Towns project of the Buğday Association, supported by the European PAN (Pesticide Action Network).



## Pesticide Free Towns Project (2021)



Bu proje Avrupa Birliği tarafından finanse edilmektedir. This project is funded by the European Union.

#### Sivil Toplum Diyaloğu VI Zehirsiz Kentlere Doğru Projesi



#### Türkiye'deki Belediyelerde Zararlı Mücadelesi **Durum Analizi Raporu**

Buğday Ekolojik Yaşamı Destekleme Derneği Avrupa Pestisit Eylem Ağı

**Ekim 2021** 

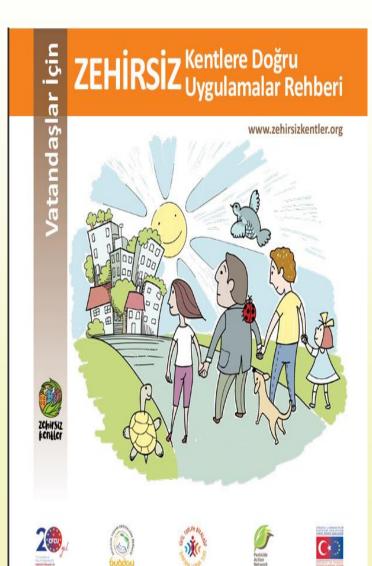


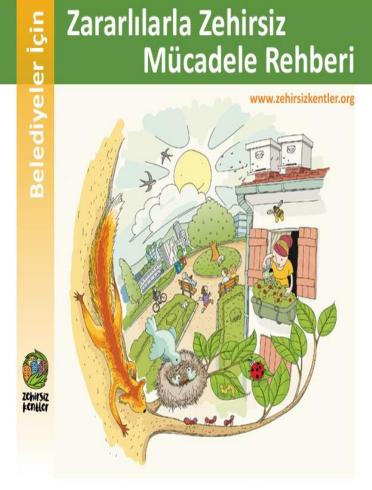
























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- The results of studies in Kazakhstan, Kyrgyzstan and Tajikistan indicate that farmers in these countries are exposed to significant amounts of pesticides and health personnel are not adequately trained to treat pesticide poisoning.
- A series of trainings on 'Treatment and response to pesticide poisoning for health workers' was organised in Kazakhstan, Kyrgyzstan and Tajikistan in November-December 2024 in cooperation with FAO Central Asia Office and BİYOSİDER.

# Training on Diagnosis and Treatment of Pesticide Poisoning for Healthcare Professionals and Introduction of Poison Centre Concept in Kazakhstan, Kyrgyzstan and Tajikistan (2024) Food and Agriculture Organization of the United Nations

- The training was given by experts from BİYOSİDER in order to inform health personnel about the effects of pesticides and their species on human and environmental health, to increase the awareness of users and the public, to prevent possible deaths and disabilities, to develop treatment approaches and to provide guidance for the establishment of poison centres.
- A total of 60 Kazakh, 60 Kyrgyz and 30 Tajik health personnel from Kazakhstan, Kyrgyzstan and Tajikistan participated in the seminar where both theoretical and practical trainings were given.







Kazakhstan/Almaty

Kazakhstan/Astana









Food and Agriculture Organization of the United Nations







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