

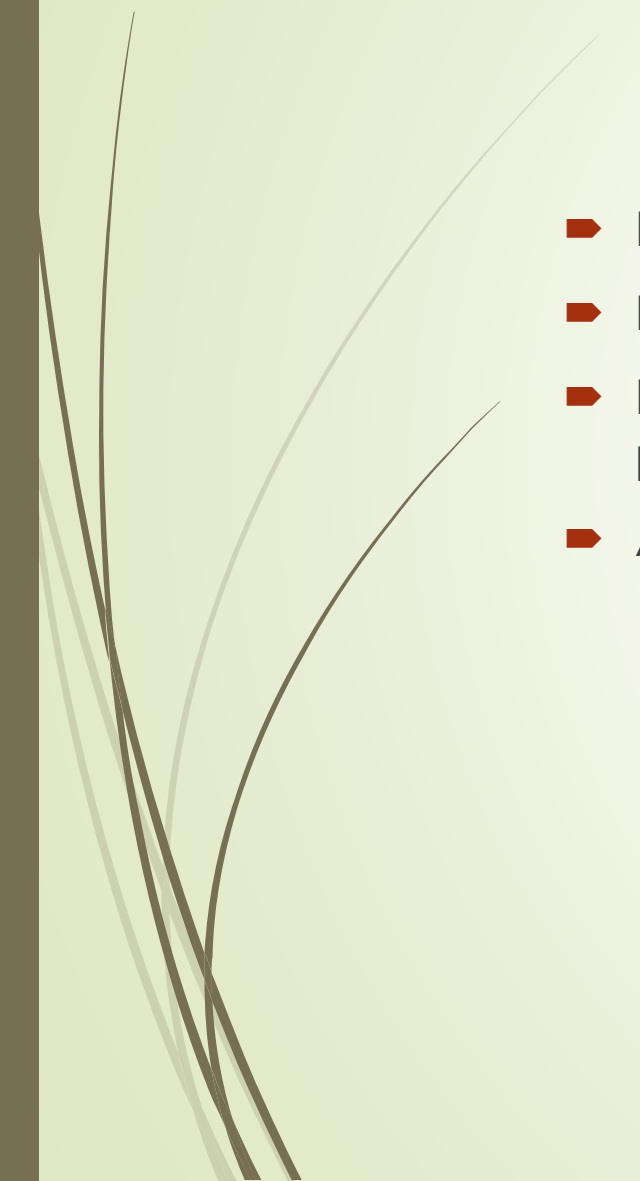


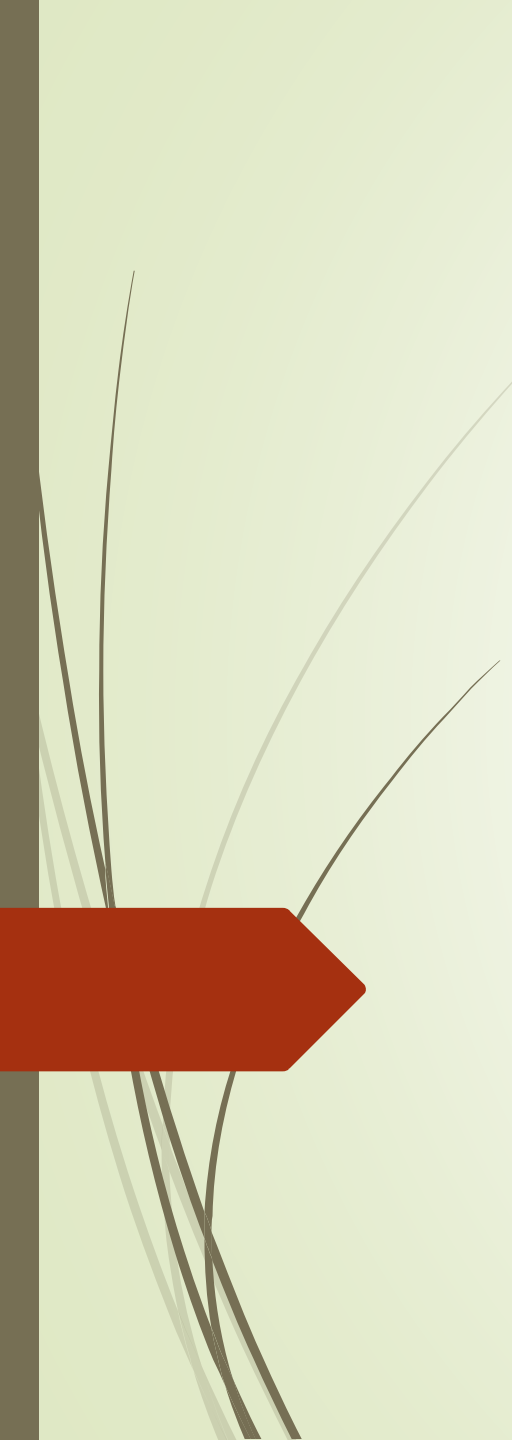
SURVEY ON BEHAVIOR OF PLANT PROTECTION PRODUCTS USERS IN THE REPUBLIC OF SERBIA

Ana and Vlade Divac Foundation



DIVAC FOUNDATION


- ▶ Established in 2007
 - ▶ Humanitarian non-profit organization
 - ▶ Helping refugees, families in rural areas, women and young farmers, small producers
 - ▶ Agriculture projects
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The research aims to answer whether the application of plant protection products (PPPs) is in accordance with the regulations for users supplied with PPPs in smaller stores.

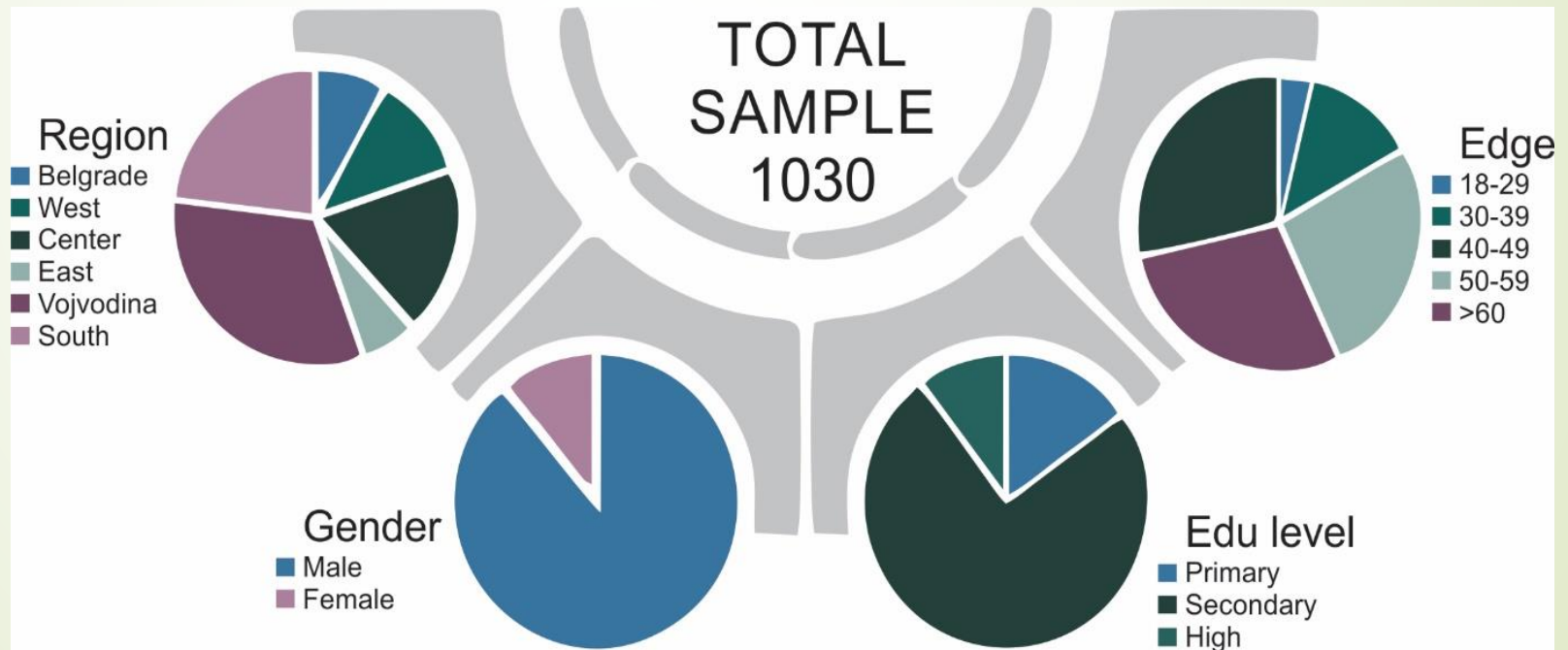


METHODOLOGY

- ▶ Small households
 - ▶ 1030 farmers, 116 municipalities, 227 agricultural pharmacies
 - ▶ designed to examine the attitudes of respondents on behavior in the selection, application, storage, use of personal protective equipment, knowledge of regulations in this area, packaging waste management and other selected important aspects related to PPPs use.
 - ▶ The answers grouped into logical units, analyzed and presented for the entire territory of the Republic of Serbia, the segmentation of the results of the total sample by regions, gender, age and level of education was done.
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RESULTS

- Results presented for the entire territory of the Republic of Serbia, the segmentation by regions, gender, age and level of education





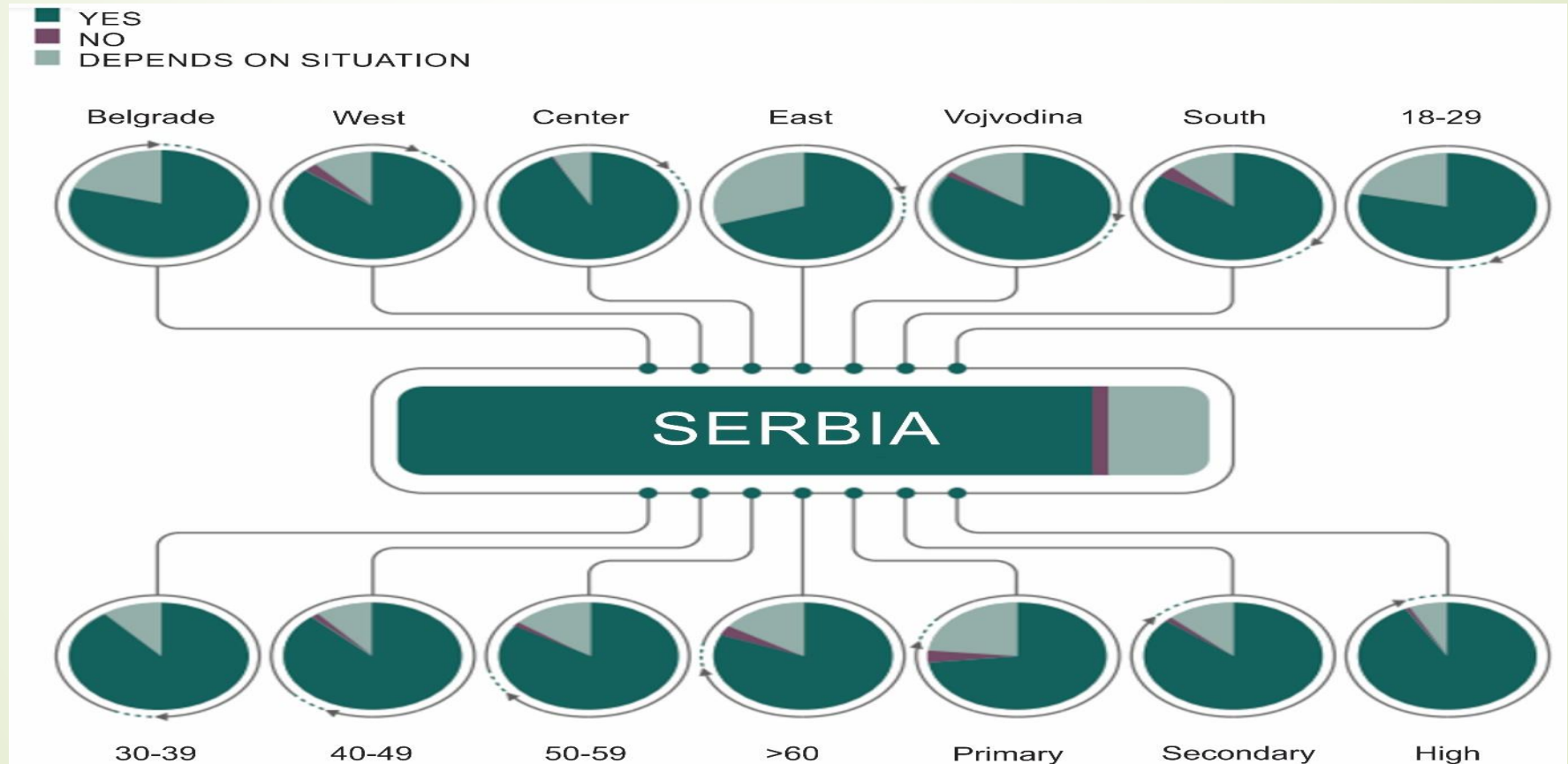
Structure of agricultural production and most used PPPs

- ▶ Mixed agricultural production is mostly represented among respondents across Serbia
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Making decision on selecting PPPs

- agricultural pharmacists,
- my own experience,
- consultants
- representatives of PPPs producers.

Respecting label and PPPs application instructions



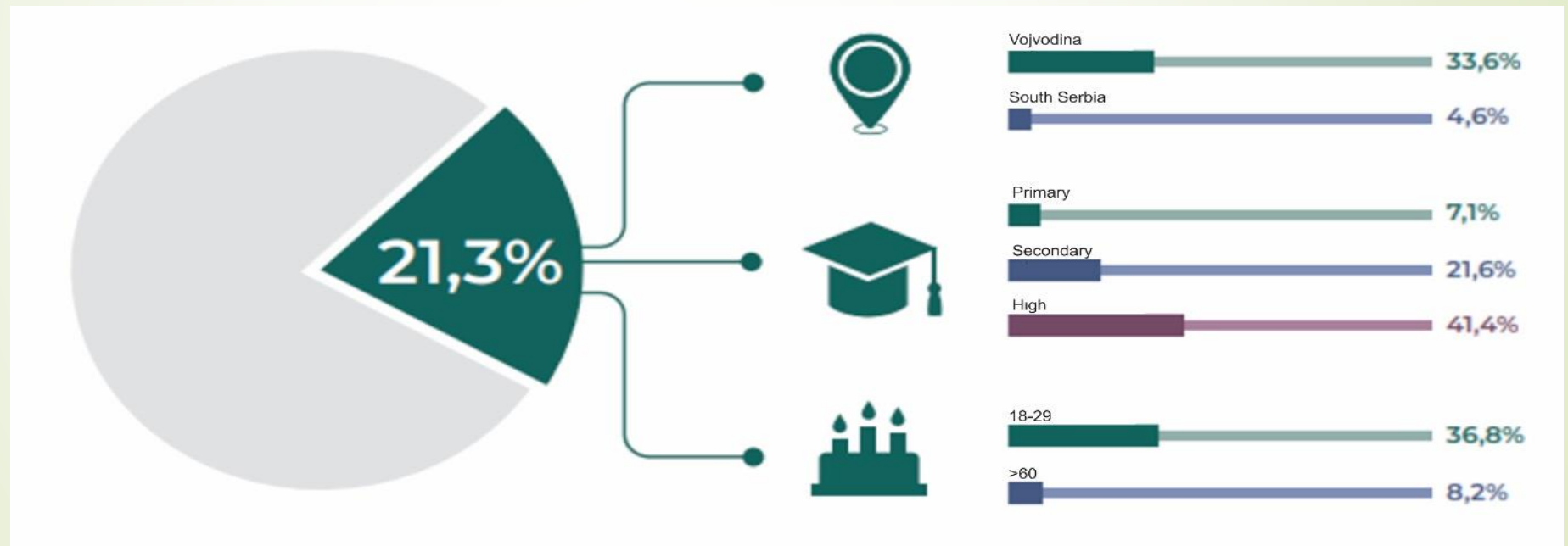


Terms preharvest interval and pesticide spray drift

- 93,9% of respondents familiar with the term of preharvest interval.
- One half of respondents (47,9%) are not familiar with the term of pesticide spray drift.

Use of personal protective equipment

- High percentage of PPPs users don't use the personal protective equipment at all (4,6%).





Use of illegal PPPs

The main reason to buy illegal PPPs were:

- higher trust (56.6%),
- better price (25.3%) and
- recommendations (13.1%).



PPPs storage

- Only **15.6%** store PPPs in a special room for this purpose,

-**34,9%** store PPPs in the same room with other agricultural products (crops, plant and animal nutrient),

7,3% in a special room with mechanization and personal protective equipment,

38,5%

The most surprising is the smallest percentage of highly educated who store PPPs in adequate conditions (7,1%), at the difference of those with elementary education (17,4%) and secondary education (16,7%). in other places.



Packaging waste management

- ▶ 50% of respondents disposing of packaging in municipal waste,
- ▶ 37.4% destroying it by burning,
- ▶ 3.3% disposing of it in the field, and
- ▶ only 9.3% keeping it until collection from packaging collection companies.



Sprayer calibration, cleanliness and regularity inspection

53,6% respondents regularly control the sprayer (they immediately fix defects)

46,4% respondents control sprayer only when they have problems





Knowledge of Law on Plant Protection Products

- ▶ only 27.4% of respondents know the Law on Plant Protection Products,
- ▶ 35.6% are not familiar with its content, and
- ▶ 37% know some parts of Law.



PPPs record keeping

75,7% respondents keep PPPs records, most of them in Belgrade region (96,5%) compare to western Serbia (28,8%).

The percentage of those who keep PPPs records is higher among male respondents (76,5%) compare to female respondents (67%).

The majority of respondents with higher education (85,6%) keep PPPs records compare to those with secondary (79,3%) or with elementary education (51,3%).



Position of PPPs users on the harmonization with EU legislation

The Sustainable Use of Pesticides Directive

- ▶ Only **37,7%** of respondents support the implementation of the PPPs directive in Serbia,
- ▶ **30,3%** of them are against it,
- ▶ **32%** don't know about these regulations



CONCLUSIONS

- PPPs users in Serbia are not sufficiently familiar with the regulations and trained for efficient and safe application of PPPs,
- that PPPs are largely not applied in accordance with regulations and that there is a high risk to human health and the environment.

In this regard, it is necessary to introduce a **system of permanent training, periodic testing of knowledge and certification of PPPs users**, then a system to **control the correctness of equipment** for the application of PPPs and mandatory knowledge and compliance with legislation and **keeping records** on the application of PPPs.