The CAP and national priorities within the EU budget after 2020.

# THE RISK MANAGEMENT AND THE INSURANCE OF AGRICULTURAL PRODUCTION

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#### INTRODUCTION

- The plant production has been threaten by natural disasters and other harmful incidences.
- Agricultural production performs mostly "under the open sky", and it is always exposed to the influence of many natural factors that can't be often predicted.
- The **goal** of this paper is to show the way how the insurance in agriculture is carried out, and the extent of the insurance widespread in Serbia, with an emphasis on the business results of insurance companies i.e. efficiency of plant production insurance.

### PLANT PRODUCTION AND INSURANCE IN SERBIA

- Q: How to protect agricultural production?
- A: To insure our production!
- Insurance of agriculture can be divided into two types of insurance:
- 1. Insurance of plant production (crops, yields, medicinal herbs, orchards, vineyards etc.)
- 2. Insurance of domestic and other animals (sheep, cattle, pigs, bees, dogs, turkeys, ducks and pheasants, exotic animals in zoos and outside zoos etc)
- What happened in Serbian agriculture production insurance?
- Although the state offers incentives, only 10% of arable land is insured.

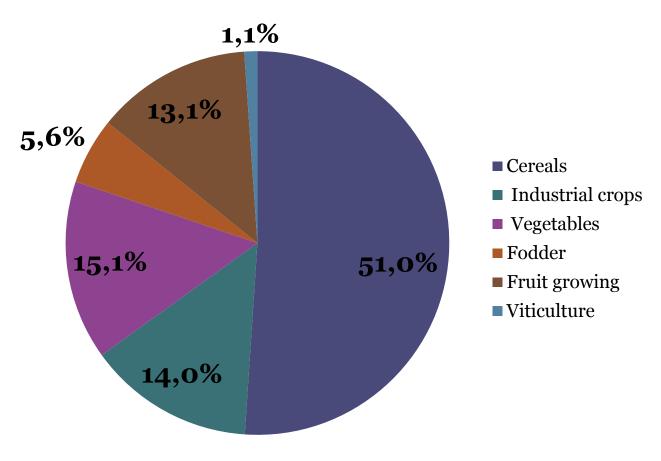
### STRUCTURE OF AGRICULTURAL PRODUCTION IN SERBIA

- Total value of agricultural production in 2016 was 5.3 billion USD (11.8% increase regard to 2015)
- Central Serbia has share of 54.3%, and Vojvodina 45.7% in total value.
- Plant production was 3,5 billion USD in 2016. Its 66,2% of total agricultural production. (20,28% increase regard to 2015.)
- Central Serbia has share of 45,9%, and Vojvodina 54,1% in plant production.

## STRUCTURE OF AGRICULTURAL PRODUCTION IN SERBIA IN 2016.

Serbia		Central Serbia		Vojvodina	
Crop	Value (in euro)	Value	Share in %	Value	Share in %
Maize	1,257,643.54	431,279,443	34.3	826,364,097	65.7
Wheat	472,439.10	181,630,487	38.4	290,808,616	61.6
Soy	207,263.61	15,019,660	7.2	192,243,953	92.8
Sunflower	165,420.17	11,759,209	7.1	153,660,959	92.9
Raspberry	101,525.03	101,135,711	99.6	389,322	0.4
Sugar beet	93,400.68	0	0	93,400,681	100
Apple	88,540.86	47,734,336	53.9	40,806,520	46.1
Lucerne	69,082.16	48,611,380	70.4	20,470,775	29.6
<b>Sour cherry</b>	40,170.64	34,571,391	86.1	5,599,251	13.9
Peach	33,386.32	25,881,893	77.5	7,504,428	22.5
Pear	27,677.35	22,010,785	79.5	5,666,567	20.5
Strawberry	15,406.26	13,727,138	89.1	1,679,119	10.9

## STRUCTURE OF PLANT PRODUCTION IN SERBIA IN 2016.



### CHARACTERISTICS OF THE PLANT PRODUCTION INSURANCE IN SERBIA

- Although the premium costs are only 1.5%-2% of the production value only 10% of arable land and less than 5% of registered holdings in Serbia are insured.
- The insurance premiums of crops and yield make less than 3% of the total insurance market
- The average share of plant production insurance premium in the total premium of agricultural insurance was 70%, and animal premiums were 30%.
- From 95% to 98% of all insurances are against the basic risks (hail, fire and thunder strike)
- Insurance premium for maize is 34 EUR/1ha and for raspberry is 1.022 EUR/1ha,

#### RESEARCH RESULTS

- The research was conducted in the largest insurance company in the field of agricultural production insurance in Serbia "DDOR Novi SAD"
- We observed the centres of plant production in towns Novi Sad, Sremska Mitrovica and Zrenjanin in period from 2010 to 2017.
- We measured relation between damage payed and premium insurance expressed by techical result in %

#### RESEARCH RESULTS

Technical result of the plant production insurance by branch offices for the observed period 2010-2017

Branch office	Closed technical premium (RSD)	Liquidated damages (RSD)	Technical result (%)
Zrenjanin	85,367,039.91	62,032,255,00	72.66
Novi Sad	103,295,126.86	100,590,906.08	97.38
Sremska Mitrovica	39,590,086.79	44,806,035.00	113.17
Total	228,252,253.56	207,429,196.08	90.88

#### RESEARCH RESULTS

Technical results by branch offices for the period 2010-2017 (%)

Year	Zrenjanin (%)	Novi Sad (%)	Sremska Mitrovica (%)
2010	96.81	148.98	27.55
2011	85.76	19.01	65.31
2012	187.19	0.71	12.54
2013	<b>27.43</b>	416.34	427.02
2614	42.42	2.06	33.83
2 <mark>0</mark> 15	17.09	15.95	3.75
2 <mark>016</mark>	196.61	68.89	17.05
2017	14.61	135.77	86.83
Γotal	72.66	97.38	113.17
overdrought			

#### CONCLUSIONS

- For stimulating insurance of agricultar production it is necessary to create long-term solutions:
- 1. Stable portfolio, along with the risk diversification,
- 2. Adequate system of subsidies
- 3. Developing the preventive funds
- 4. Products adjusted to the needs of insured persons
- 5. Programmes to raise the awareness on risks in agriculture and improve the availability of such insurance.
- One of the suitable solutions is a pre-contractual obligation of adequate insurance as the condition for obtaining subsidies in agriculture by the state.

Thank you!