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# RISK EVENTS IN SHEEP FARMING IN BULGARIA

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## Abstract

*The aim of the research was to find some of the most often occurred risk events in sheep farms in Bulgaria. 22 sheep farms in Bulgaria were surveyed and questionnaire information was collected from them in 2020. As a result of the study, it was found that the number of farms in which a risk event had occurred in the last 5 years was almost equal to the number of farms in which such an event had not occurred. Of the climatic risks, the most common were drought, followed by hail and cold. Of the other risks, the most common were the sale of products below cost and infectious animal diseases. In the case of a risk event, the effect on the activity of the farm was usually from no effect to medium. As measures to deal with the risk event, the farmers responded differently: some of them financed their activity from another business; others were looking for better markets for their products; some coped at the expense of family deprivation, or waited for the risk event to pass. Also, some farmers had started vaccinating animals against diseases. The majority of farmers did not receive compensation from the state in the case of a risk event. Only 9% of farmers had insurance other than that required for machinery. The prevailing part of the farmers believed that the state did not adequately support them in terms of risk.*

**Keywords:** sheep farming, risk factors, farm insurances

**JEL Classification:** Q10, Q12

## INTRODUCTION

Risk is a term used to describe a situation in which the possible outcomes and possible alternatives for each situation are known and it means that there is more than one possible outcome (alternative) [5]. Risk related to the agricultural sector is any current or future hazard (event) with a significant negative impact. It is either idiosyncratic, incidental, unlikely to be associated with an unpredictable event, or systemic - very likely, a “predictable” event [1]. The occurrence of some of these risks and the associated impairments are largely unknown. This cognitive failure makes them very difficult to manage by individuals or markets. Some risks associated with meteorological conditions, such as drought and floods, have a systemic component, as they affect most farmers in an entire region or country [2]. It is difficult to gather information on this type of risk in the sector. Other risks (such as hail) are easier to combine and analyze. Some risks are catastrophic because they are very rare but cause great damage and are often systemic [4]. The development of agricultural production is characterized by greater instability compared to other sectors of the economy [3]. Of essential importance for agricultural production are the risks that determine the yield and the final agricultural production. Risks in agriculture arise as a result of the uncertainty of the factors determining the return on agricultural production.

The aim of the research was to find some of the most often occurred risk events in sheep farms in Bulgaria.

## MATERIALS AND METHODS

A number of 22 sheep farms in Bulgaria were surveyed and questionnaire information was collected from them in 2020. The farmers were asked the following questions:

- Was there a risk event on your farm in the last 5 years?
- What climate risks most often occur on your farm?
- Which risks happen to your farm most often (except the climate)?

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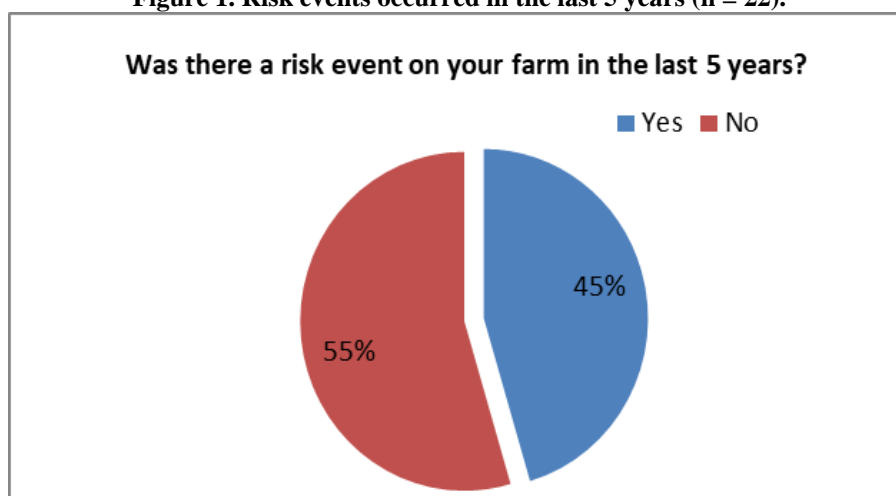
- What were the consequences of the risk occurred?
- What measures did you take to deal?
- Do you receive compensation from the state in case of a risk event?
- Do you have insurance other than that required for the machinery?
- Do you think that the state adequately supports your sector in terms of risk?

Based on the obtained data, the most common risk events and their effect on the activity of the studied farm were derived. The number of observations varied between 21 and 22 depending on how many farmers had answered the question asked.

## RESULTS AND DISCUSSIONS

More than half of the surveyed sheep farmers (55%) answered that in the last 5 years no risk event had occurred on their farms (Figure 1). Such an event occurred in 45% of the farms.

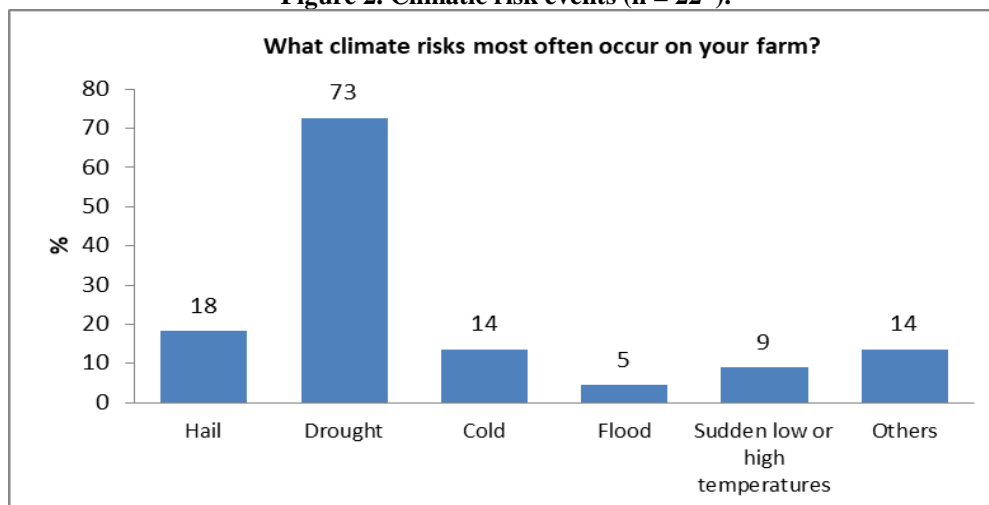
**Figure 1. Risk events occurred in the last 5 years (n = 22).**



Source: own analysis

In the surveyed farms, the most common risk related to climatic conditions was drought (73% of farms), followed by hail (18%) and cold (14%). 9% of sheep farmers reported sudden low or high temperatures, and 5% of them - floods.

**Figure 2. Climatic risk events (n = 22\*).**

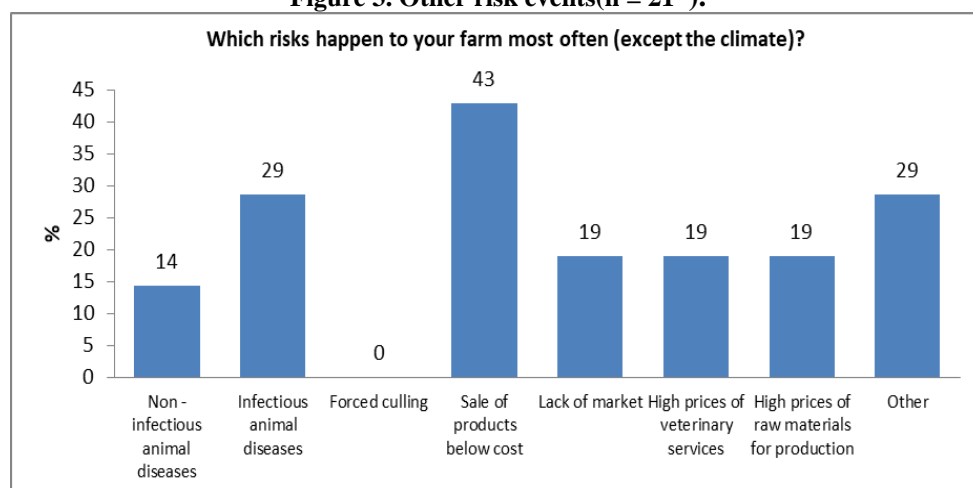


\*Some of the farmers pointed out more than one answer.

Source: own analysis

Other risk events related to climatic factors had occurred in 14% of farms (Figure 2).

**Figure 3. Other risk events(n = 21\*).**

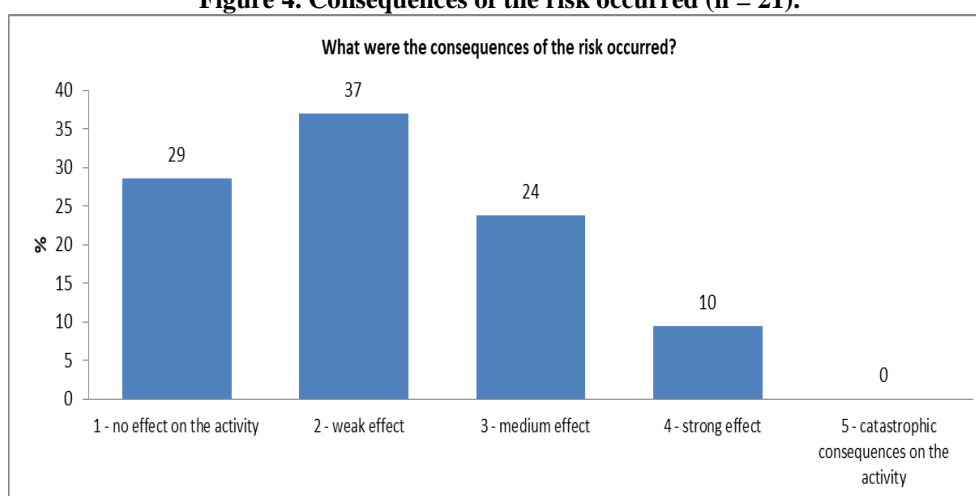


\*Some of the farmers pointed out more than one answer.

Source: own analysis

Almost half (43%) of sheep farms reported selling products below cost, and 29% of farms had infectious animal diseases. 19% of the respondents answered that the following risk events had occurred: lack of a market for the products, high prices of veterinary services and high prices of raw materials. Non-infectious animal diseases had been identified in 14% of farms. Other risk events occurred in 29% of farms (Figure 3).

**Figure 4. Consequences of the risk occurred (n = 21).**



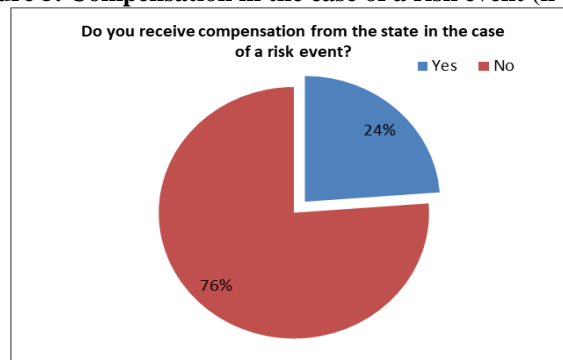
Source: own analysis

In 37% of the farms the effect on the activity as a result of the occurred risk was weak. In 29% of the farms no effect on the activity was observed as a result of the risk event. A medium effect was reported in 24% of the farms, and a strong effect was observed in 10% of them. Catastrophic effect on the activity was not observed in any of the farms (Figure 4).

To the question "What measures did you take to deal?", the farmers answered differently: some of them financed their activity from another business; others were looking for better markets for their products; some coped at the expense of family deprivation, or waited for the risk event to pass. Also, some farmers had started vaccinating animals against diseases.

A quarter of farmers (24%) reported receiving state compensation in the case of a risk event. The remaining three quarters (76%) of farmers did not receive compensation from the state when such an event occurred (Figure 5).

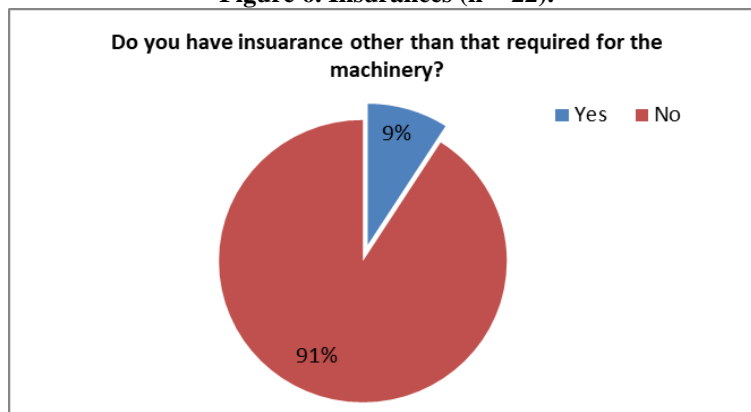
**Figure 5. Compensation in the case of a risk event (n = 21).**



Source: own analysis

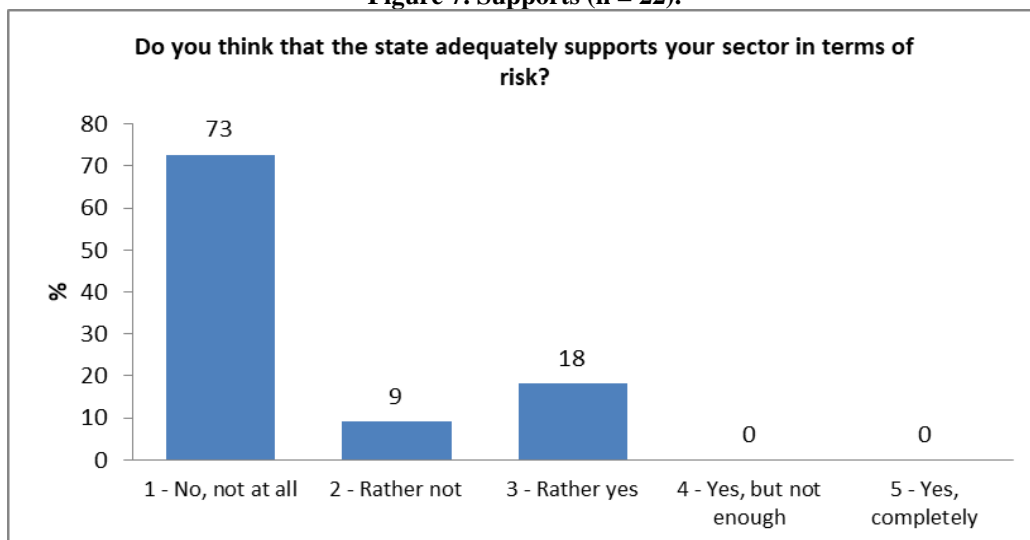
When asked if the farmers had insurance other than that required for the machinery, a small part of the respondents answered that they had (9%) and the rest (91%) reported that they did not (Figure6).

**Figure 6. Insurances (n = 22).**



Source: own analysis

**Figure 7. Supports (n = 22).**



Source: own analysis

The prevailing part (73%) of the farmers believed that the state did not adequately support them in terms of risk. 9% answered that the state rather did not support them enough, and 18% were in the opinion that the state rather helped them (Figure 7).

## CONCLUSIONS

As a result of the study, it was found that the number of farms in which a risk event had occurred in the last 5 years was almost equal to the number of farms in which such an event had not occurred. Of the climatic risks, the most common were drought, followed by hail and cold. Of the other risks, the most common were the sale of products below cost and infectious animal diseases. In the case of a risk event, the effect on the activity of the farm was usually from no effect to medium. As measures to deal with the risk event, the farmers responded differently: some of them financed their activity from another business; others were looking for better markets for their products; some coped at the expense of family deprivation, or waited for the risk event to pass. Also, some farmers had started vaccinating animals against diseases. The majority of farmers did not receive compensation from the state in the case of a risk event. Only 9% of farmers had insurance other than that required for machinery. The prevailing part of the farmers believed that the state did not adequately support them in terms of risk.

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