

## BASIC CHARACTERISTICS OF LIVESTOCK INSURANCE IN SERBIA - WITH REFERENCE TO THE SOME ELEMENTS OF THIS TYPE OF INSURANCE IN SOME NON-EUROPEAN AND EUROPEAN COUNTRIES

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### Summary

*The livestock insurance is a part of agricultural insurance. This type of insurance is also part of a non-life insurance. The livestock insurance is undeveloped in Serbia. In general, a very small number of farms (5% of total) decided for the conclusion of livestock insurance contracts. This paper analyzes the basic characteristics of this type of insurance, and the authors pay attention to the implementation of this type of insurance in other countries. Special attention is paid to the livestock insurance in Mongolia, India, Mexico and Ireland who are defined livestock insurance programs that have contributed to a greater number of contracts concluded in this field. Also, the authors speaking about livestock insurance in some European countries. Finally, the authors criticize the way in which is regulated livestock insurance in Serbia, by proposing a series of measures that should be implemented by the insurance companies and state.*

**Key words:** *agricultural insurance, livestock insurance, risks, insurance premium, general insurance conditions.*

**JEL:** *K12, Q10*

### Introduction

Around two million inhabitants of the Republic of Serbia earn a living by farming. It is estimated that there are 450,000 farms in the country, but a rather small number of them opts for insuring their land, crops, products, livestock, etc. Only 5 to 10% of the farms have entered into any of the aforesaid forms of insurance in the field of agriculture. On the other hand, insurers emphasize that big agricultural companies are being insured every year, but not always and not against all the risks, which poses a problem.

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Livestock insurance is provided by insurance companies which are registered for non-life insurance, which also includes agricultural insurance, and within it livestock insurance (Kopf, 1928). Generally speaking, agricultural insurance comprises two sectors, one for the insurance of crops and products, and the other for the insurance of livestock. Livestock insurance is applied according to the general and particular conditions for this kind of insurance, and we shall analyze some of the key provisions of these conditions (*Opšti i posebni uslovi za osiguranje životinja*, DDOR Novi Sad) established by one of the biggest insurance companies in Serbia. We shall also touch upon livestock insurance in other countries. We shall see that the situation in this respect varies and that more livestock insurance schemes are found in poor countries. On the other hand, in many developed countries, all risk (or multiple peril) livestock insurance are offered together with many domestic support programs (Smith, Glauber, 2012). This primarily relates to the subsidies of insurance premium by the state.

### **Methodology and data sources**

Livestock insurance is a type of insurance where the risks are very high. The main problem of this study is, precisely, in definition of those risks. On the one hand, there is a need for greater insurance coverage, and on the other hand, the problem is in high insurance premiums, as well as, in the relationship between these premiums and sum insurance. When we talk about insurance premiums, they are high in relation to income generated in this area, but they are not high relative to the risks.

The subject of this research consists in choosing a model that would be the best for the livestock insurance not only in Serbia, but in the region. These models are defined in the systems of insurance in other countries, outside of Europe, as well as, in Europe. However, the most important thing is to adapt the conditions of livestock insurance to the livestock production and to the needs of farmers and agricultural enterprises.

The purpose of this article is to show that the livestock insurance is undeveloped compared to other types of insurance of agriculture, as a form of property insurance.

The basic hypothesis which we will try to define in this paper refers to the determination of the role of the state in livestock insurance, which applies to the subsidies of insurance premiums, as well as, to the control of the insurance companies and the farmers (agricultural companies) and execution of their obligation to implement this type of insurance. The main obligation of the insurance companies is to create favorable conditions for insurance and the main obligation of the farmers consisting in the obligatory conclusion of contracts of livestock insurance. In this regard, state authorities and insurance companies should use some of the solutions defined in other countries, which are listed in this article. The auxiliary hypothesis is refer to the clearly definition the conditions of insurance by taking into account all the specifics related to livestock production.

### **Livestock insurance in Serbia – historical development**

It is of interest to consider how this kind of insurance has functioned in Serbia in the last 120-130 years. Insurance in general was undeveloped in the 19<sup>th</sup>, and at the beginning of the 20<sup>th</sup>

century, and is mainly associated with the work of foreign insurance companies in Serbia.

The development of livestock insurance in Serbia began around the end of the 19<sup>th</sup> century. There appeared in many villages certain forms of organizations for mutual livestock insurance which, mostly left to their own devices, regularly ended in failure. The agricultural and veterinary experts at the time stressed the importance of establishing a central livestock insurance institute, since institutes of the kind already existed in most European countries. With that in mind, the Livestock Insurance Act ("The Serbian Magazine of the Kingdom of Serbia", No. 252/1905) was passed around the end of 1905. The result was the establishment of a Fund with the Ministry of People's Economy, which served to cover the damage suffered by livestock owners (Petrović et al., 2013). The Fund's initial capital amounted to RSD 200,000, and each year tax was collected from livestock owners, amounting to damages from the previous year. Municipal courts, which inventoried the number of cattle and horses, were also involved in organizing insurance. The lists were delivered to the Ministry of People's Economy, which determined the payment amount (Marković, 2007).

Around the end of 1937, the Kingdom of Yugoslavia saw the passage of the Act on Commercial Cooperatives ("The Official Gazette of the Kingdom of Yugoslavia", no. 217-LXII/37) which created the conditions for livestock insurance. This required of the Minister of Agriculture to establish, in agreement with the Minister of Trade and Industry, the rules to define the conditions under which cooperative agricultural insurance was to be applied, which also involves livestock insurance. Of the private insurance companies, the "Yugoslavia" Stock Company of Belgrade held the biggest share in livestock insurance. However, it insured a relatively small number of cattle and horses compared to the number of heads of cattle in the Kingdom of Yugoslavia (Marković, 2007).

After the Second World War, the State Insurance Institute of the time attributed great importance to livestock insurance. In 1946 insurance of porkers was introduced, and in 1947 insurance started being applied to breeding pigs, hoofed animals, cattle, goats and sheep, etc. From 1957 the development of livestock insurance evidently forged ahead, in conjunction with intensified livestock production. At the beginning of 1958 the Order was passed on determining the risks against which the commercial organization was obligated to insure capital and current assets, and joint expenditure assets (Official Gazette of the Federal People's Republic of Yugoslavia, no. 14/58). This Order required cattle to be insured against death and emergency slaughter due to disease or accident (Marković, 2007).

A revision of this kind of insurance occurred in 1964. Horses, mules and donkeys were now insured at 4 months up to 15 years of age, cattle from 1 month to 12 years, sheep and goats from 2 months upwards, and swine from the weight of 15 kg upwards. The Basic Law on Insurance and Insurance Organizations was passed at the beginning of 1967 (Official Gazette of the SFR Yugoslavia, no. 7/67). This Law revoked the livestock insurance obligation in the social sector. Every insurance company was individually forced by the law to establish livestock insurance conditions and premium tariffs. They were harmonized at the level of the Association of Insurance Organizations and this period was marked by no significant differences between insurance institutes (Marković, 2007). Changes to the rules of livestock

insurance were introduced in 1972, as well as in 1977. The new insurance conditions introduced discounts on the number of insured heads of cattle and for entering into long-term insurance contracts (Marković, 2007).

During the nineties of the 20<sup>th</sup> century, this kind of insurance suffers one of the most difficult periods in history, until the situation improved in the last few years. With a view to encouraging insurance in agriculture in general, the Republic of Serbia government passed in 2005 the Decree on the conditions and manner of using assets for refunding the insurance of livestock, crops and products in 2006 ("Official Gazette of the Republic of Serbia, No. 106/2005), whereby registered farms were given the opportunity to get a refund for part of the funds used to pay premiums to insurance companies.

Within the last decade only around ten insurance companies have been offering livestock insurance in Serbia. The insurance applies to all the species of reared animals and some wild animals. The principal risk is death, emergency killing or slaughter of animals due to disease or accident, with options of insurance against many additional risks as well (Marković 2007; Osiguranje poljoprivrede, 2012).

### **Regulation of livestock insurance in Serbia - analysis of insurance conditions**

Livestock insurance in Serbia is regulated by the general and special conditions (Počuča et al., 2013). With regard to livestock insurance, as part of insurance in agriculture, the content of the general conditions regulating this kind of insurance is an important factor. Besides, the country's policy in this area is also extremely important. With that in mind, we shall focus on the basic elements of the general conditions of livestock insurance established by one of the most important insurance companies in Serbia, and discuss the method of regulating the subsidizing of insurance premiums by the state in this kind of insurance. The aforesaid General Conditions of Livestock Insurance stipulate that this kind of insurance can apply to healthy domestic animals, as follows: cattle, pigs, sheep, goats, horses, poultry, fish, dogs, bees, minks, pheasants on pheasant farms, as well as exotic animals kept as domestic ones. It should be noted that the object of insurance is the animal, but not its products. It follows from the aforesaid that this kind of insurance cannot cover diseased animals or animals suspected of being diseased; exhausted, emaciated, blind animals and animals in bad shape, then animals kept in bad hygienic conditions and other kinds of animals, except those assigned to be insured under special conditions (Počuča et al., 2013). On the other hand, the insurer is obliged to pay coverage for damage resulting from the death of an insured animal, due to accident, emergency slaughter due to disease or accident (the so-called emergency slaughter out of necessity). However, the insurer is not obliged to cover the damage incurred through emergency slaughter for economic reasons if the diseases resulted from long-term, excessive and unreasonable exploitation of animals or from not treating the animals in due time or not at all.

### **Risks covered by livestock insurance**

All the risks covered by livestock insurance can be divided into the primary and supplementary risks, as with other insurance types. The primary risks are the following: death, emergency

slaughter and killing due to disease or accident, while supplementary risks can be the loss of breeding ability in male breeding heads, the loss of breeding ability in heifers and cows, etc. In addition, insurance of animals during quarantine, insurance against the risk of castration and ovariectomy while in exhibitions and fairs can be contracted as other supplementary insurances. The same general rule applies to livestock insurance and to insurance in general, i.e. that insurance against supplementary risks can be contracted only if the primary risks have previously been covered (Mrkšić et al., 2014). It should also be noted that treatment expenses can be covered by insurance, provided that they are separately agreed upon. Speaking of risks, we must add that livestock insurance also includes the withholding period which signifies the period during which the insurer is not obliged to cover damages, even if an insurance contract does exist. Namely, the insurer can be obligated to cover damages due to death or emergency slaughter of an insured animal, but only after 14 days as of the moment of signing the contract. In livestock insurance we can speak of primary coverages against the risks of accident and disease that animals can be covered against individually or on floating basis (Manić, 2012).

### **Characteristics of determining of insurance premium and sum insurance in livestock insurance**

Livestock insurance premium amounts depend on the species and use of animals. This must be borne in mind before applying insurance tariffs. If breeding animals are to be covered, the length of breeding will matter in determining the insurance premium. The premium amount will also depend on the conditions in which the animals are kept, their nutrition, as well as the availability and quality of veterinary care. In all the tariffs, livestock insurance premiums are calculated by applying a stipulated percentage to a specified insurance amount. It is therefore essential to point out the generally accepted basic rules of the trade that the livestock insurance amount is based on. The livestock insurance premium is calculated in line with the tariff of the premium rate which is expressed in percentages of the established insurance amount. As livestock insurance is characterized by decrease and increase of risk during the insurance period, a corresponding reduction or rise of the premium is also possible, but always relating only to the remaining part of the insurance period, and it can be initiated either by the insured or the insurer. Even though in developed countries the premium is usually paid on annual basis, in Serbia it is normally paid each month.

The livestock insurance tariff also includes granting discounts on the premium, if the insured has realized the predicted massive, broad-scale insurance, but only on condition that the premium is paid in advance. It also includes certain surcharges, the most important being a special surcharge for the annulment of withholding period provisions.

In determining the premium amount the group of dangers that the covered animals are susceptible to is also an important factor. A danger group is defined as a group of animals on which the effect of harmful factors is observed and noted as equally prominent on average for a relatively long period of time, so that in terms of danger they pose a single risk. As a result the first danger group, which is in turn characterized by a lower premium rate, includes animals located in places with excellent organization and production technology, with fully

functioning prevention, while the fifth danger group, with a considerably higher premium rate, includes animals located in places where the conditions of keeping, accommodation, and feeding of animals are less satisfactory.

The insurance sum is determined per covered animal. The insurance sum with breeding animals is defined as the value of a head, and with feeders it is defined as the product of the price per 1 kg of “live weight” and the so-called “animal’s output weight”. The insured is entitled to request of the insurer during the insurance term to decrease or increase the insurance sum, which the insurer, naturally, has to agree to. On the other hand, in line with a general rule relating to insurance, the insurer is entitled to control the risk during the insurance term and in turn to propose to the insured any reduction or rise of the insurance amount, and automatically of the insurance premium, which the insured has to agree to as well.

### **Insured case and damage assessment**

In livestock insurance as in any other type, the insured is obliged to take all the stipulated, agreed upon and other measures, to prevent the occurrence of any insured case (Žarković, 2008). If an insured case takes place, the insured is obliged to take all measures to minimize any adverse effects. Besides, the insurer is obliged to indemnify the insured for any costs of loss, or other damage caused by a reasonable effort to eliminate the imminent threat of occurrence of a covered case. Should the insured fail to fulfil their obligation to prevent the occurrence of the covered case, the insurer’s obligation shall be reduced by as much as, due to the non-fulfillment, the damage has grown in scale. One of the rules applied in order to avoid risk selection, i.e. the selection of animals to be insured, is that if the insured has multiple heads of cattle of the same species, they shall be obliged to insure all the animals of that same species they possess, regardless of ownership, if the animals belong to a species that can be insured. It is also possible to insure part of an animal species, but only if the insurer consents to that. In such a way even uninsured heads of cattle are entered into the documentation required for insurance coverage with all the elements required to identify them.

In damage assessment, general rules governing insurance shall apply, but it is essential that the insured, immediately upon occurrence of a covered case, informs the insurer, who will send a veterinary to assess the damage (Katrinka, Brkanić, 1996). In the previous period, big insurance companies had permanently employed veterinaries, but recently, due to rationalization, Serbian insurers have not paid much attention to their veterinary service. This has affected the development of livestock insurance in Serbia. In that regard, we should probably consider the possibility of licencing veterinaries who are to do this job. Relating to that, we should also consider continuous education of veterinaries assessing the risks on entering into an insurance contract and the damage upon occurrence of an insured case.

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We shall touch upon some other important characteristics of livestock insurance. First, it is essential to exactly establish the place where the insurance object, i.e. the animal, is located. The animal is insured only while located at the defined place of insurance, which must also be

stated in the policy. The place of insurance also includes the insured's landed property, and an animal is also insured while driven or transported to or from such places. On the other hand, if the animal is transported to an exhibition or fair, this requires entering into an additional insurance contract.

Insurance terminates after alienation of the insured animal, at the moment when the insured stops keeping the animal. However, if ownership of insured animals is, on any basis except for sale, transferred to a third party, the insurance contract shall remain in force, but between the insurer and the insured's legal successor, but only on condition that the premium is paid. There is also the possibility of introducing another animal as the insurance object in place of the alienated animal, on condition that it satisfies the insurance conditions.

### **Subsidizing of premiums in livestock insurance**

In insurance in agriculture in general, and livestock insurance in particular, the subsidizing of premiums is very important. The Republic of Serbia Government has for years been implementing a subsidizing scheme for insurance premiums for crops and products. RSD 400 million from the Republic of Serbia budget is earmarked for insurance refund (data from 2014). 40% of the paid insurance premiums is subsidized (refunded) excluding the tax amount. The right to refund is granted to legal entities, entrepreneurs and natural persons, i.e. persons running commercial family farms. According to this scheme, we can insure the following: crops and products against the risk of yield reduction, nurseries and young perennial plantations before yield, and animals. The right to premium refund is acquired by filing to the competent Ministry and the Treasury a request for granting the right to a refund. This request can be filed on annual basis. In order to obtain the right to insurance premium refund, a copy should be filed of the policy issued by the insurance company with which the insurance contract was entered into, as well as the insurance premium payment certificate. As regards natural persons who run commercial family farms, they shall submit a certificate issued by the insurance company and the certificate on effected payment of the total insurance premium amount (Subvencionisanje osiguranja životinja). This is only an illustration of the way in which the subsidizing of premiums functions in technical terms. Having stated, at the beginning, the number of people earning their living by farming in Serbia, we can conclude that the amount earmarked for subsidizing premiums is not high. Moreover, when filing requests for premium refunds, some reservations emerge relating to filing proofs of premium payment in full. First, it could happen that the farmer does not have sufficient funds to enter into an insurance contract, and the subsidizing would never take place. Second, the method of paying the premium to the insurer is also relevant, since subsidizing depends on it too.

### **Livestock insurance in Croatia – some elements of general conditions of insurance**

We shall briefly focus on the conditions of livestock insurance in neighbouring Croatia. These conditions apply to insurance by „Croatia osiguranje“ Company. According to these conditions, the objects of insurance can be hoofed animals up to 15 years of age, cattle up to 10 years of age, sheep and goats from 6 months to 6 years old, swine from one month old with 5 kg minimum weight to full 7 years of age, rabbits, domestic poultry, feathered game

(intensive breeding). It is of interest that these conditions also provide for insurance of dogs and cats, bees, decorative exotic animals, freshwater fish, etc. Special insurance conditions apply to animals in quarantine, during castration and ovariectomy. Insured risks cover cases of death of insured animals due to disease or accident, emergency slaughter, euthanasia of animals due to disease or accident. A disease is defined as any change in the normal health condition which occurs suddenly, against the will of the insured, and can result in death, emergency slaughter or killing of livestock. Uninsured risks, when the insurer is not obliged to cover the damage, include the insurance of livestock that ought not to have been insured, when the insurance term has not started, the existence of a disease prior to insurance (whereof the insurer was not informed), non-compliance with the animal age limit, unreasonable long-term exploitation of animals, cases when an animal has not been examined by a veterinary, as well as failure to follow the veterinary's instructions, partial loss of sight, nutrition with insufficient quantities or unsuitable and harmful food, deceiving the insurer, earthquake, radioactive contamination, theft and disappearance of the animal, animal slaughter or euthanasia for no justified reason, transport of the animal over a distance exceeding 10 km, etc. The insurer is not obligated to cover the damage when it results from cattle infertility, unless otherwise agreed. The insurance amount cannot exceed the animal's actual value, while for certain animals the insurer can establish the lowest and highest insurance amounts (Severin et al., 2015). In 2012, „Croatia osiguranje“ started insuring pets with treatment risk (Severin et al., 2015).

### **Livestock insurance in other countries**

The importance attributed to livestock insurance varies from one country to another. What can be identified as a shared characteristic, regarding this kind of insurance in all the countries observed, is that the insurer's principal task is to define the conditions in such a way as to attract as many livestock owners as possible to enter into livestock insurance contracts. In some countries, insurance is also dictated by frequent weather changes (Mongolia). On the other hand, even highly developed countries face some problems when it comes to insuring livestock. One of the features common to all the countries is that, speaking of percentages, the number of livestock insurance contracts is immeasurably smaller than those relating to other kinds of insurance in agriculture. Similarly, in a vast majority of countries, the state is expected to create a scheme which would enable a broad-scale protection of livestock through insurance. Even when speaking of the mandatory or voluntary nature of this kind of insurance, the situation varies from one country to another. For example, livestock insurance is voluntary in Japan. On the other hand, this insurance is mandatory for epidemics in the Netherlands and Switzerland. Livestock insurance is mandatory in China with regard to swine epidemics, more specifically sows. In countries such as Equador, Morocco, India and the Philippines this kind of insurance is voluntary (Mahul and Stutley, 2010).

When it comes to the most highly developed country in the world, the United States, we cannot say that this kind of insurance is at an enviable level. The United States have been constantly working on expanding the livestock insurance market. There is a disparity between the consumption of livestock products and livestock insurance. In other words, in 2011 the

United States realized over USD 160 billion from the sale of livestock products. However, the total value of covered livestock amounts to somewhat over USD 1 billion. Private insurance available to stock farmers covers risks such as fire and thunder, natural disasters such as hurricane, then the risks of choking, attack by wild dogs, collapse of the structures where the livestock is located, etc. The covering of the risk of mortality due to disease is limited to individual animal species (Collins, 2011).

We shall quote several interesting examples relating to livestock market expansion in individual countries, which differ both in terms of the continents they belong to, and the economic capacity, as well as the scope of livestock production.

### **Livestock insurance in some non-European countries**

#### **Mongolia**

We shall also mention Mongolia, due to its sharp winters that destroy livestock. In 2005 the Mongolia Government filed a request to the World Bank for technical aid in designing and implementing a pilot livestock insurance scheme (Luxbacher and Goodland). The request stated that animal mortality was high and that the issue of insurance should be resolved at the level of households, i.e. individual livestock owners. This pilot scheme also takes into account situations when livestock mortality rate is up to 6%, and when it is over 30%, when, practically speaking, we are dealing with catastrophic situations. According to this scheme, insurance premium amounts are determined based on assessment of mortality rates in the period from January to May. This is the first time an insurance index is used in Mongolia, bearing in mind that until then insurance practice in this country was unsustainable. Livestock insurance is offered through the scheme of indemnity insurance pool, which relates to insuring unified risk through a public-private arrangement, involving more than one insurance company. This pool is protected by means of the so-called stop-loss reinsurance contract signed by the Government with the support of World Bank. This scheme has several advantages: - it is completely isolated from other kinds of insurance, which is very important considering the limited capital resources of insurance industry in Mongolia; - it fully guarantees compensation payment, thus eliminating any risk of non-payment; - it enables insurance companies to integrate their livestock insurance portfolio in different regions of Mongolia; - it enables capacity building of insurers taking part in financing this risk (Agricultural Insurance in Asia and Pacific region, 2011).

It is expected that international reinsurers will provide capacity for the first risk layers, while the Government will cover only catastrophic layers of risk. In 2009 this scheme was implemented in four Mongolian provinces (Bayankhongor, Khentii, Uvs and Sukhbaatar) with the participation of four insurance companies (Agricultural Insurance in Asia and Pacific region, 2011).

#### **India**

We shall present some elements of the India insurance scheme applied to dairy cows and bison. The scheme provides aid to families having dairy cattle, in case of death of animals.

The insurance amount is calculated based on the annual premium amounting to 4% of animal value, estimated by a veterinary surgeon. Insurance can be renewed for another year, but the value of the covered animal is reduced by 20% (Iturrioz, 2009). Should an insured case take place, the request for indemnity is sent to the local organization, i.e. the village organization which accepts or rejects the request. The insurance scheme in India which is organized locally has been successful so far. Namely, the number of covered animals has risen from 3,500 in 2005 to 25,500 in 2008. The insurance premium rose from USD 3,7 million in 2005 to USD 8 million in 2008. This scheme is sustainable, as labour expenses make up 12% of the premium. Those expenses are operational and include insurance expenses, the expenses of loss assessment and those of processing requests for damages. Supervision of these operations is also provided (Iturrioz, 2009).

### **Mexico**

Mexico has 25 years of experience as regards the insurance of crops and livestock by small farmers and stock breeders, through the “Fondos de Aseguramiento”, i.e. a self-insurance scheme reinsured by Agroasemex, the national reinsurance in agriculture. In 2005 there were 176 self-insurance funds in 24 Mexican states, whereof 159 covered the insurance of crops, and 17 livestock insurance. In 2007 over one million hectares of crops and over 4 million heads of livestock were insured through this scheme. USD 60 million worth of insurance premiums was realized. A big part in the insurance of crops and cattle is also played by Agroasemex, which implements the „Stop Loss“ Reinsurance scheme (Iturrioz, 2009).

### **Livestock insurance in some European countries**

In Ireland, two thirds of agricultural production are the production of livestock, i.e. beef and dairy products. This situation has contributed to the development of support mechanisms which have been reflected in direct payments in recent years. This support isolates the negative effect of the market and price instability. The principal risk in stock farming in Ireland is livestock disease. As a result, the key risk management measures in Ireland are concerned with defining different schemes for control of animal diseases and their eradication. The major schemes relate to control of diseases such as tuberculosis and brucellosis of cattle. The schemes include a large number of components, including research, supervision, control of wild animals, administration, testing, elimination of infected animals, indemnity payment to livestock owners, veterinary necropsy, inspection in slaughter-houses, etc. The expenditures of the aforesaid schemes have been reduced recently, owing to their efficiency and effect in reducing disease incidence. For example, the scheme expenses in 2008 amounted to over EUR 60 million, and they were financed by public funds and the agricultural community. These schemes have also reduced the demand for entering into this kind of insurance contracts in Ireland. Organizing and maintaining these schemes is essential for the meat and other products coming from livestock bred in Ireland to be available in the EU market (Agricultural Insurance).

Speaking of livestock insurance in Spain, it is only available as a comprehensive package, i.e. all the animals have to be covered by insurance against specific risks. New insurance

schemes also provide insurance against the risks of foot-and-mouth disease, blue tongue, classical swine fever, etc. Each region in Spain has to decide on financing livestock insurance. In some regions, the state pays up to 80% of insurance expenses. Spain is promoting the idea of one policy covering all the risks, such as accidents, diseases, fire, theft, etc. (Agricultural Insurance).

In Great Britain, the Government provides compensation for emergency slaughter of livestock due to particular contagious diseases. The private insurance sector also provides insurance against particular diseases and indemnity for slaughter of livestock, where no compensation is available (Agricultural Insurance).

In Greece are both public and private insurance available for farmers (Lorant, Farkas, 2015). An independent state organization – ELGA (Greek Agricultural Insurance Organization) – provides the compulsory insurance and possibility of insuring livestock against multiple risks, thus fully covering possible damages suffered in livestock production (Lorant, Farkas, 2015; Agricultural Insurance). Besides the risks of natural disasters, animals can also be insured against the risks of anthrax, viral diarrhea, mastitis-induced gangrene, etc. We shall also mention private insurance in Greece, even though it is not so well developed in this area (Agricultural Insurance).

It is assumed that the main risks relating to livestock insurance will still be animal diseases, in particular exotic diseases the most prominent of which is the “blue tongue” epidemic. In the last decade this disease has been widespread across European countries (Agricultural Insurance).

### **Conclusion**

Livestock insurance covers numerous unpredictable risks. It is therefore normal to carefully weigh up those risks in drawing up insurance conditions. We have seen that the livestock insurance markets vary globally. Even individual countries display discrepancies when it comes to covering particular risks in this kind of insurance. In view of the aforesaid, livestock insurance does not have the status it should have within insurance in agriculture. Livestock insurance on a global scale constitutes a relatively small segment of agricultural insurance in general, amounting to 4% according to the premiums paid in 2008. The premium primarily covers the risks of death, injury, loss of functions as the cause of accident, natural causes, as well as the risk of emergency slaughter of livestock for reasons of humanity. As regards the insurance amount, it is based on the animal’s market value, and can be reduced due to its old age. The premium rate ranges from 1.5% to 10% of the insurance amount based on animal species, age, location, and the function it performs (Iturrioz, 2009). We have seen that individual countries implement special insurance schemes, as well as reinsurance schemes, with a view to raising premiums in this kind of insurance.

As regards livestock insurance in Serbia, we must say that it is undeveloped. This applies both to the policy of insurance companies in this area, and to the schemes to be defined by the state, which would not only include premium subsidizing, in the manner described above. Livestock insurance premiums are not high compared to the assumed risks. However, the

situation in stock farming in Serbia is very difficult, so that despite the low premium amounts the insured in Serbia rarely choose to enter into this kind of insurance contracts.

For increasing the number of contracts in this kind of insurance, it is essential to: 1) create new Conditions and Tariffs by insurers for this kind of insurance, which would have to be more flexible, cost-effective and attractive for the insured; 2) create new insurance products in this kind of insurance, following the example of countries with developed livestock insurance; 3) grant new benefits on the part of insurers, or discounts on entering into livestock insurance contracts. In this context the premium payment method should be made more flexible (defining participation in the positive technical result), and insurance packages created in such a way as to include livestock insurance, thus also including premium discounts; 4) make underwriting, as well as damage assessment, more professional, which requires the companies to have their own professional veterinary staff or enter into the corresponding contracts with competent veterinary services. In that regard, continuous training of veterinaries and other professionals is also essential; 5) paying special attention to defining prevention, or preventive schemes which should be jointly drawn up by professionals (veterinaries) in insurance companies and the insured; 6) given that non-life insurance premiums, including livestock insurance premiums, are subject to taxation, it is necessary to assess the possibility of reducing or abolishing the tax relating to this kind of insurance; 7) it is essential to define and realize schemes for educating all the potential insured, including all the legal entities and natural persons dealing with stock farming, to acquaint them with the significance and advantages of this kind of insurance; and 8) livestock insurance promotion schemes should be defined by the competent ministry, and the Association of Insurers of Serbia.

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## OSNOVNE KARAKTERISTIKE OSIGURANJA STOKE U SRBIJI – SA OSVRTOM NA SPECIFIČNIM ELEMENTIMA OVE VRSTE OSIGURANJA U ODREĐENIM ZEMLJAMA U EVROPI I VAN NJE

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### Rezime

*Osiguranje stoke spada u osiguranje poljoprivrede. Ovu vrstu osiguranja sprovode osiguravajuća društva koja se bave neživotnim osiguranjima. U Srbiji je osiguranje stoke nerazvijeno. Uopšte, veoma mali broj poljoprivrednih gazdinstava (5-10% od ukupnog broja) se odlučuje na zaključenje ugovora o osiguranju stoke. U radu se analiziraju osnovne karakteristike ove vrste osiguranja, a autori posvećuju pažnju i sprovođenju ove vrste osiguranja u drugim zemljama. Kad je u pitanju osiguranje stoke u Srbiji, analiziraju se opšti uslovi osiguranja stoke donetih od strane jednog uspešnijeg osiguravajućeg društva, a posvećuju se pažnja i načinu na koji se subvencionišu premije osiguranja poljoprivrede, pa i osiguranja stoke, što je podržano od strane Vlade Srbije. Sa druge strane, značajna pažnja se posvećuje osiguranju stoke u Mongoliji, Indiji, Meksiku i Irskoj koji su definisali programe osiguranja stoke koji su doprineli većem broju zaključenih ugovora u ovoj oblasti. U Mongoliji se navedeni program sprovodi kroz osiguranje objedinjenog rizika, u Indiji se ovo osiguranje sprovodi na nivou lokalne zajednice (sela), u Meksiku preko fondova samoosiguranja i tzv. „stop-loss“ reosiguranja, a u Irskoj se definišu različiti programi za kontrolu bolesti životinja i njihovo iskorenjivanje. Isto tako, autori govore i o osiguranju stoke u pojedinim evropskim zemljama. Na kraju, u radu se kritikuje način na koji se sprovodi osiguranje stoke u Srbiji, tako što se predlaže niz mera koje bi trebalo da sprovedu kako osiguravajuća društva, tako i država, od kojih treba izdvojiti povlastice, koje se ne tiču samo premije osiguranja, a koje treba dati vlasnicima stoke kako bi se odlučili na osiguranje. Osim toga, potrebno je kreirati nove proizvode osiguranja kod ove vrste osiguranja, edukovati poseban tim veterinara koji vrše procenu stoke prilikom zaključenja ugovora i štete kod nastanka osiguramog slučaja, definisati programe prevencije, kao i definisati programe edukacije za buduće osiguranike, vlasnike domaćih životinja. Moramo reći da osiguranje stoke nema ono mesto koje bi trebalo da ima u okviru osiguranja poljoprivrede. I u svetu, osiguranje stoke predstavlja relativno mali segment ukupnog osiguranja poljoprivrede, čak i u veoma razvijenim zemljama.*

**Ključne reči:** *osiguranje poljoprivrede, osiguranje stoke, rizici, premija osiguranja, opšti uslovi osiguranja.*

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