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The Role of Grassland in Central Slovakia Region

Rola użytków zielonych w regionie Centralnej Słowacji

GRASSLAND HISTORY

Meadows and pastures always formed a great part of agricultural land of Slovakia. Mácha (1926) affirms the area of 608 204 ha pastures in Slovakia (in 1994 it was about 553 000 ha). According to Mácha (1926) in the first half of 18th century there were large pastures (for all categories of animals) in our mountains in the altitudes 1000-1400 m a.s.l. Those pastures were so called common pastures or 'urbariats' and their origin goes as far as the reign of Maria-Theresia. The first bill concerning the management of common pastures and the rights of the users was passed in 1836 and 1840.

The real beginning of the establishment of common or cooperative pastures is dated since 1913 when so called Xth Law Article was issued. It enabled the transformation of differently owned, common pastures into pasture associations or cooperatives. The aim of the pasture cooperative management was to improve the animal production (from pasture) by all suitable means: establishment and good care for pasture being one of them. The pasture cooperative was managed by executive and supervision committees and all members' board. Members' board decided the economic and organisation tasks: e.g. members' annual contribution, etc.

The war events (1914-1918) stopped the forming of new pasture cooperatives but a new development began in 1925. Majority of pasture cooperatives in Central Slovakia region were established also in 1925 (e.g. Sásová, Telgárt, Kováčová, Vlkánová, Závadka and others). Unfortunately there were too many owners of quite small pasture areas. Rendek (1949) explains that 'urbariat' parts of pastures were too much split into smaller and smaller pieces (they went from generation to generation) and sometimes the pasture of 30-40 ha was owned by 100 cooperative members. That's why some members have the right to graze their animals on common pastures only 'one foot', 'two feet', 'one hoof' or even 'half hoof'.

Čumakov (1949) shows the area of cooperative pastures in Slovakia in the following way:

Region	Area (ha)
Žilina	21,516
Liptovský Mikuláš	30,321
Banská Bystrica	39,118
Rimavská Sobota	29,092
Central Slovakia	120,047
Slovakia	276,070

These data show the great amount of cooperative pastures in Central Slovakia (nearly the half of Slovak pasture acreage) and Banská Bystrica had the highest deal in Central Slovakia region.

The fifties brought the great changes into Czechoslovak agriculture. Central (government) orders 'recommended' to form cooperative farms, even if the conditions in some parts of Slovakia were not good for collective farming. So nearly all Slovak grasslands became common. Albeit the common utilisation of cooperative grasslands meant and mean only one cut and/or one grazing. Also many grasslands were renovated and many of them changed into arable land.

Forced collectivisation brought changes into animal husbandry too: the large-scale animal husbandry was established. The animals were put into big newly-built stables and very often they were fed there too, especially dairy-cows. Though the private dairy cows were grazed outside before, the farming system has changed for stable feeding. Consequently it meant a not appropriate or poor utilisation of our meadows and pastures.

GRASSLAND PRESENT

Present area of grasslands in Central Slovakia region is shown in table 1

For whole Slovakia having more than 800,000 ha of grasslands, Central Slovakia has more than half of it: 433,436 ha. Though the situation since 1949 has changed Banská Bystrica still has a second greatest proportion of grasslands in Central Slovakia region (51,715 ha). Only the district Dolný Kubín (Northern Slovakia) has bigger 'share' of grasslands (59,919 ha).

Production potential of Central Slovakia grasslands is rather high but also their marginal parts should be taken into consideration. Special attention must be given to the so-called marginal and/or peripheral rural areas. Such areas in Central Slovakia are covered mainly by grasslands and forests.

The part of Central Slovakia grasslands is situated in natural parks or in protected natural areas. They occur usually in higher altitudes (the best preserved /so-called/ mountain meadows are in the altitudes 900 m a.s.l.) in the mountains of Low Tatras, Great and Small Fatras, Martinské Hole, and Slovenské Rudohorie. Mountain meadows are mainly in northern districts of Central Slovakia region (Dolný Kubín, Liptovský Mikuláš, Žilina, Martin, Čadca, Zvolen and Banská Bystrica).

The mountain meadows represent the important natural component of the country. They help to form the balanced character of the country and their permanent agricultural utilisation enabled the preservation of some original, highly evaluated and protected plant species (Cvachová 1988).

Tab. 1. Acreage of grasslands and agricultural land (ha) in Central Slovakia (Štatistická ročenka 1993)
Obszar użytków zielonych i ziem uprawnych (ha) w Centralnej Słowacji (1993)

District	Meadows	Pastures	Agricultural land
Banská Bystrica	18,119	33,596	64,852
Čadca	8,618	15,625	32,063
Dolný Kubín	24,448	35,471	75,011
Liptovský Mikuláš	13,985	32,243	64,641
Lučenec	9,892	23,457	64,485
Martin	6,915	13,487	40,762
Považská Bystrica	6,920	14,885	40,076
Prievidza	6,700	10,311	35,870
Rimavská Sobota	8,610	36,481	101,235
Veľký Krtíš	5,242	12,547	53,012
Zvolen	20,455	24,948	82,794
Žiar nad Hronom	12,388	17,492	44,617
Žilina	6,627	13,994	39,176
Central Slovakia	148,919	284,517	738,594

Anyway, in some cases of building new roads or water reservoirs in the mountains the original natural swards with protected species (like *Lolium martagon*, *Lilium bulbiferum*, *Gentiana clusii*, *Crocus heuffelianus*, *Trollius europaeus* and *Calanthiana verna* (Cvachová 1988).

The importance of mountain grassland is underlined also by their non-production functions: erosion control, protection of water resources (grassland + forest) and conservation of diversified landscape and nature values. Thus the mountain grasslands form the part of sustainable development of marginal areas.

The role of grassland is necessary to follow through the animal production. Unfortunately during the period of economic transition Slovak animal production changed for the worse. Animal production became very often unprofitable: numbers of cattle and dairy cows were considerably reduced.

For the most of cooperative farm the milk and beef production became less or non-profitable, so the numbers of animals went down. Nevertheless the situation is more stable now and there is inclination to increase both meat and milk production in 1995.

Decreasing numbers of cattle meant also less utilised meadows and pastures and that caused further problems, mainly environmental ones. A lot of grassland was not cut and/or grazed: the shrubs invaded many of them recently. So it is necessary to make efforts for sustainable grasslands in the future.

Tab. 2. Numbers of cattle and dairy cows/ha of agricultural land and milk production/cow/year
(J. Lazarčík 1994)

Liczba bydła i krów mlecznych/ha ziem uprawnych oraz produkcja mleka na krowę/rok

Year	1989	1991	1992	1993
Cattle	-	64,4	57,6	-
Cows (heads)	-	22,6	20,7	-
Milk production (l)	3,654	2,894	2,861	2,800

GRASSLAND FUTURE

The sustainable development of agriculture in Central Slovakia region is very closely connected with the sustainable development of grassland. Its role is to produce enough of good quality forage which is needed for profitable animal production. Hetteš (1994) confirms the profitable milk production of 3500 l/cow/year in our conditions.

Grassland research in our region is also involved in management of sustainable grassland to meet the animal requirements in producing the sufficient quantity and good quality of milk and meat. Seminal swards in our experiments are mainly dominated by *Trisetum flavescens*, *Dactylis glomerata*, *Avenastrum pubescens*, *Arrhenatherum elatius*, *Poa pratensis* and *Festuca pratensis*.

Farming in mountain and submountain regions is more difficult than in lowlands and needs governmental concern and support. Also agricultural policy in European Union contains the Farm Hill Regulation and support for mountain and ecologically sensitive areas in EU.

As grasslands and forage production make a very important part of farming in Central Slovakia the production and non-production functions (mainly ecological) of grasslands must be taken into consideration. The rural development is based on sustainable grassland development.

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STRESZCZENIE

Użytki zielone na Słowacji rozciągają się na powierzchni ponad 800 000 ha. Rejon Centralnej Słowacji ma ok. 433 500 ha użytków zielonych: 148 900 ha łąk oraz 284 600 ha pastwisk. Na łąkach przeważa użytkowanie kośne, natomiast pastwiska są użytkowane zgodnie ze swoim przeznaczeniem. Poza użytkowaniem rolniczym użytki zielone mają także funkcję ekologiczną i społeczną.

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