

Grain Legume Crop History among Slavic Nations Traced Using Linguistic Evidence

ALEKSANDAR MIKIĆ

Institute of Field and Vegetable Crops, Novi Sad, Serbia

Abstract

MIKIĆ A. (2014): Grain legume crop history among Slavic nations traced using linguistic evidence. Czech J. Genet. Plant Breed., 50: 65–68.

With Proto-Slavic and other Proto-Indo-European homelands close to each other and on the routes of domestication of the first cultivated grain legumes, now known as pulses, one may assume that the ancestors of the modern Slavic nations knew field beans, peas or lentils quite well. The main goal of this short note was to examine the origin and the diversity of the words denoting field bean, pea and lentil in most of the modern Slavic languages. The common ancestor of all modern Slavic words denoting field bean is the Proto-Slavic **bobŭ*, derived from the Proto-Indo-European **bhabh-*, *bhabhā*, also denoting field bean and meaning literally something swelling. The Proto-Slavic root **gorhŭ*, denoting pea, is the origin of the words denoting pea in all the Slavic languages and was derived from the Proto-Indo-European **ghArs-*, *ghers-2*, that denoted a leguminous plant in general. The words denoting lentil in the modern Slavic languages form two etymologically distinct groups. The first one owes the origin to the Proto-Slavic **letjā*, also denoting lentil and deriving from the Proto-Indo-European root **lent-*, **lent-s-*, with the same meaning. Another group has its origin in the Proto-Slavic **sočevica*, somehow related to the Proto-Slavic **sòkŭ*, denoting juice. This short thesaurus is a testimony of the significant role the most ancient Eurasian grain legumes, such as field bean, pea and lentil, have been playing in the everyday life of the modern Slavic nations.

Keywords: agricultural history; etymology; field bean; lentil; lexicology; pea; Slavic languages

Grain legumes, belonging to the family *Fabaceae* syn. *Leguminosae*, comprise crops cultivated for both human consumption and animal feeding. Apart from these two main purposes, many grain legumes may be used for diverse non-food purposes such as green manure (PIETERS 1927), as witnessed by several authors from Ancient Greece and Rome, such as Theophrastus and Varro. Field bean (*Vicia faba* L.), pea (*Pisum sativum* L.), lentil (*Lens culinaris* Medik.), vetchlings (*Lathyrus* spp.) and vetches (*Vicia* spp.) are regarded as globally the most important (SMÝKAL *et al.* 2010). All of them originated in Near Eastern, Mediterranean and Central Asian centres of diversity (ZEVEN & ZHUKOVSKY 1975). They are also considered among the world's first domesticated plant species (ZOHARY & HOPF 2000), with the earliest archaeological findings about 10 000 years old and located mainly in Syria (TANNO & WILLCOX 2006). From there, these traditional Eurasian grain legumes

have spread in all directions. Most notably, cereals and grain legumes brought about the agricultural revolution all over post-glacial Europe: in rather a short period, during the sixth millennium BC, they reached all corners of the continent, such as modern northern France (BAKELS 1999) and present-day Armenia (HOVSEPYAN & WILLCOX 2008). The Balkan Peninsula and Central Europe have been especially rich in archaeobotanical evidence on growing grain legumes since Neolithic times, with famous sites such as Stare Gmajne in Slovenia (TOLAR *et al.* 2010), Kutné Hory in the Czech Republic (MIKIĆ & SMÝKAL 2009) and southern Serbia (MEDOVIĆ *et al.* 2011).

The Slavic branch of the Indo-European language family has the greatest number of speakers in Europe. The ultimate origin of the Slavic languages is the same as for their Baltic, Celtic, Hellenic, Italic or Germanic relatives: the Proto-Indo-European language that was supposedly spoken by Proto-Indo-

Europeans. This people became distinct in the vast Pontic-Caspian steppe and from there they migrated in many waves and in many directions, ever since the fifth millennium BC (ANTHONY 2007). It is assumed that the Balto-Slavic branch separated from the other Indo-European languages probably from 3000 to 1000 BC (ANDERSEN 2003), while between 1500 and 1000 BC these two groups were finally differentiated between each other. The Slavic tribes in their original homeland in Eastern Europe, although numerous and with a developed civilisation, were scarcely known to Greeks or Romans. However, their outstanding expansion in the early fourth century AD made them more famous and distinctive to the Western civilisation. The language, spoken by all Slavic tribes before their migration and directly derived from the Proto-Indo-European, is commonly referred to as Proto-Slavic. Modern Slavic languages are rather differentiated and diversified, but their common origin is highly recognisable and the differences are still relatively small (LOCKWOOD 1977).

All branches of the Indo-European language family, including the Slavic one, possess extensive vocabularies of the words common to their languages, retaining nearly the same forms despite millennia of separate development. Among such words, quite rich are those related to wild and domestic animals, as well as to wild flora and cultivated crops, such as fruits, cereals and legumes (MIKIĆ-VRAGOLIĆ *et al.* 2007). From a geographic point of view, both Proto-Slavic and other Proto-Indo-European homelands were close to each other and on the very routes of domestication of the most ancient grain legumes. Therefore, it may be supposed that the ancestors of the today's Slavic nations knew field bean, pea and lentil quite well in their original homeland, and also that they cultivated and used them before their great migrations. The main goal of this short note was to examine the origin and the diversity of the words denoting field bean, pea and lentil in the majority of the modern Slavic languages, as well as to testify to the significant role they had in the everyday life of the Slavic tribes, peoples and nations.

Field bean in Slavic languages

The words denoting field bean in modern Slavic languages show an extremely high degree of mutual morphological similarity (Table 1). Their common ancestor is the Proto-Slavic **bobŭ* (VASMER 1953). This Proto-Slavic root was derived from the Proto-Indo-European **bhabh-*, *bhabhā* (Figure 1), also denoting field bean and meaning literally something swelling (POKORNY 1959; NIKOLAEV 2007). From Slavic sources, the words for field bean were borrowed by the neighbouring Indo-European languages, such as the Indo-Iranian Romani, with *boba*, and the Italic Romanian, with *bob*, as well as by the non-Indo-European languages, such as the Uralic Hungarian, with *bab* (MIKIĆ 2011).

The Proto-Indo-European root **bhabh-*, *bhabhā* also gave the presumed Proto-Albanian root **bhakā*, the Old Prussian *baba* and *babo*, the Proto-Germanic **bau-nō(n-)* and the Latin *faba*, all with the preserved original meaning. The only representative of the Indo-European languages where the meaning shifted from field bean to lentil is Old Greek, with its *φακός* (MIKIĆ 2010).

Field bean obviously had numerous ethnobotanical roles in the lives of the Ancient Slavs and Romans, as proved by personal names such as *Boban*, *Boba* and *Bobana* in Modern Serbian and Croatian languages (SKOK 1971) and the Latin names *Fabius* and *Fabia* (POKORNY 1959).

Pea in Slavic languages

The words denoting pea in modern Slavic languages demonstrate another remarkable morphological uniformity (Table 2). A slight modification exists in Croatian, Macedonian, Rusyn and Serbian, where the words have an obviously diminutive form. A hypothetical explanation may place the change during the introduction of common bean (*Phaseolus vulgaris* L.). Today, in Croatian and western dialects of Serbian, common bean is called *grah*: due to the larger size of its seeds, it could take over its name

Table 1. Words denoting field bean in modern Slavic languages (MIKIĆ 2012)

Language	Word	Language	Word	Language	Word
Belarusian	<i>bob</i>	Lower Sorbian	<i>bob</i>	Serbian	<i>bob</i>
Bulgarian	<i>bob</i>	Macedonian	<i>bob</i>	Slovak	<i>bob</i>
Croatian	<i>bob</i>	Polish	<i>bób</i>	Slovenian	<i>bob</i>
Czech	<i>bob</i>	Russian	<i>bob</i>	Ukrainian	<i>bib</i>
Kashubian	<i>bób</i>	Rusyn	<i>bob</i>	Upper Sorbian	<i>bob</i>

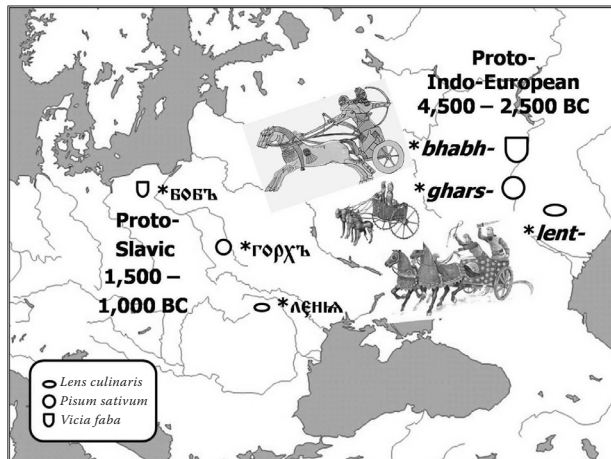


Figure 1. A geographical presentation of the development of the words denoting field bean, pea and lentil in Proto-Slavic from their Proto-Indo-European roots

from pea, while the latter became regarded as its small cognate, small *grah*, that is, *grašak*.

The Proto-Slavic root **gorhŭ*, also denoting pea, is the origin of the words denoting pea in all the Slavic languages (VASMER 1953). This Proto-Slavic root was derived from the Proto-Indo-European **ghArs-*, *ghers-2*, that denoted a leguminous plant in general (POKORNY 1959; NIKOLAEV 2007). Evidence that essentially contributes to assessing this Proto-Slavic root is the word denoting pea in Polabian, an extinct Slavic language, in the form of *gorch*. From Slavic sources, words denoting pea were borrowed by some neighbouring languages, such as the Albanian, as *gróshë* and meaning *common*

bean, and Aromanian, as *grāshac* and retaining the original Slavic meaning (MIKIĆ 2009).

The original meaning of the Proto-Indo-European root **ghArs-* was less well preserved in the remaining proto-languages of the other Indo-European branches. In fact, its traces may be found only in the Baltic languages, such as Lithuanian, with *gařšas* and *garšvà* for the species *Archangelica officinalis*, and in Germanic languages, such as High German, with *Giersch* for the species *Aegopodium podagraria* (VASMER 1953).

Lentil in Slavic languages

The words denoting lentil in the modern Slavic languages form two morphologically distinct groups. The first one comprises languages like Bulgarian or Slovenian and owes the origin of its words for lentil to the Proto-Slavic **letjā* (VASMER 1955), also denoting lentil (Table 3). Again, this proto-Slavic root ultimately developed from the Proto-Indo-European root **lent-*, **lent-s-* (POKORNY 1959; NIKOLAYEV 2007), with the same meaning. In this form, the Slavic words were borrowed by Hungarians as *lencse* (SKOK 1972).

The same Proto-Indo-European root gave several other direct derivatives with the same meaning, such as the Proto-Baltic **leñš-ia-*, Proto-Germanic **lins-ī(n-)* or Latin *lēns*, all of which gave rise to words denoting the same in their modern descendants, resembling *leřsis* in Modern Lithuanian, *Linse* in Modern German and *lenticchia* in Modern Italian.

Table 2. Words denoting pea in modern Slavic languages (MIKIĆ 2012)

Language	Word	Language	Word	Language	Word
Belarusian	<i>garoh</i>	Lower Sorbian	<i>groch</i>	Serbian	<i>grašak</i>
Bulgarian	<i>grah</i>	Macedonian	<i>grašok</i>	Slovak	<i>hrach</i>
Croatian	<i>grašak</i>	Polish	<i>groch</i>	Slovenian	<i>grah</i>
Czech	<i>hrách</i>	Russian	<i>gorokh</i>	Ukrainian	<i>gorokh</i>
Kashubian	<i>groch</i>	Rusyn	<i>hraščok</i>	Upper Sorbian	<i>hroch</i>

Table 3. Words denoting lentil in modern Slavic languages (MIKIĆ 2012)

Language	Word	Language	Word
Belarusian	<i>sačavica</i>	Russian	<i>chechevitsa</i>
Bulgarian	<i>leshta</i>	Rusyn	<i>lenča</i>
Croatian	<i>leća</i>	Serbian	<i>sočivo; leća</i>
Czech	<i>čočka</i>	Slovak	<i>šošovica</i>
Lower Sorbian	<i>sok</i>	Slovenian	<i>leča</i>
Macedonian	<i>lekja</i>	Ukrainian	<i>sochevitsia</i>
Polish	<i>soczewica</i>	Upper Sorbian	<i>sok</i>

Another group of the words denoting lentil in Slavic languages has its origin in the Proto-Slavic **sočevica* (VASMER 1958), witnessed today by the Czech *čočka*, the Serbian *sočivo* or the Russian local *lyacha* (VASMER 1955). It is most likely that this root is somehow related to the Proto-Slavic **sòkŭ*, because of *sok*, the Sorbian word for lentil (Table 3), and through it to the Proto-Indo-European **s(w)ok^w*-, both meaning juice (NIKOLAYEV 2007), but without any detailed analysis done so far.

Acknowledgements. This research was part of the Project TR-31024 of the Ministry of Science and Technological Development of the Republic of Serbia.

References

- ANDERSEN H. (2003): Language Contacts in Prehistory: Studies in Stratigraphy. John Benjamins Publishing Company, Amsterdam.
- ANTHONY D.W. (2007): The Horse, the Wheel, and Language: How Bronze-Age Riders from the Eurasian Steppes Shaped the Modern World. Princeton University Press, New Jersey.
- BAKELS C. (1999): Archaeobotanical investigations in the Aisne valley, northern France, from the Neolithic up to the early Middle Ages. *Vegetation History and Archaeobotany*, **8**: 71–77.
- HOVSEPYAN R., WILLCOX G. (2008): The earliest finds of cultivated plants in Armenia: evidence from charred remains and crop processing residues in pisé from the Neolithic settlements of Aratashen and Aknashen. *Vegetation History and Archaeobotany*, **17** (Suppl 1): S63–S71.
- LOCKWOOD W.B. (1977): Indo-European Philology, Historical and Comparative. Hutchinson, London.
- MEDOVIĆ A., MIKIĆ A., ČUPINA B., JOVANOVIĆ Ž., RADOVIĆ S., NIKOLIĆ A., STANISAVLJEVIĆ N. (2011): *Pisum* & *ervilia Tetovac* – Made in Early Iron Age Leskovac. Part One. Two charred pulse crop storages of the fortified hill fort settlement Hissar in Leskovac, South Serbia. *Ratarstvo i povrtarstvo/Field and Vegetable Crops Research*, **48**: 219–226.
- MIKIĆ A. (2009): Words denoting pea (*Pisum sativum*) in European languages. *Pisum Genetics*, **41**: 29–33.
- MIKIĆ A. (2010): Words denoting lentil (*Lens culinaris*) in European languages. *Journal of Lentil Research*, **4**: 14–19.
- MIKIĆ A. (2011): A note on some Proto-Indo-European roots related to grain legumes. *Indogermanische Forschungen*, **116**: 60–71.
- MIKIĆ A. (2012): Origin of the words denoting some of the most ancient old world pulse crops and their diversity in modern European languages. *PLoS ONE*, **7**: e44512.
- MIKIĆ A., SMÝKAL P. (2009): History of grain legumes cultivation in Europe. *Úroda*, **11**: 41–43. (in Czech)
- MIKIĆ-VRAGOLIĆ M., MIKIĆ A., ČUPINA B., MIHAILOVIĆ V., VASILJEVIĆ S., KRSTIĆ Đ., VASIĆ M. (2007): Words related to some annual legumes in Slavic and other Indo-European languages. *Ratarstvo i povrtarstvo/Field and Vegetable Crops Research*, **44**: 91–96.
- NIKOLAYEV S.L. (2007): Indo-European Etymology. The Tower of Babel, an International Etymological Database Project. Available at <http://starling.rinet.ru> (accessed January 27, 2011).
- PIETERS A.J. (1927): Green Manuring – Principles and Practice. John Wiley and Sons, London.
- POKORNY J. (1959): Indogermanisches Etymologisches Wörterbuch. Francke, Bern.
- SKOK P. (1971): Dictionnaire Etymologique de la Langue Croate ou Serbe, 1 (a–j). JAZU, Zagreb.
- SKOK P. (1972): Dictionnaire Etymologique de la Langue Croate ou Serbe, 2 (k–poni¹). JAZU, Zagreb.
- SMÝKAL P., KENICER G., FLAVELL A.J., CORANDER J., KOSTERIN O., REDDEN R.J., FORD R., COYNE C.J., MAXTED N., AMBROSE M.J., ELLIS T.H.N. (2010): Phylogeny, phylogeography and genetic diversity of the *Pisum* genus. *Plant Genetic Resources*, **9**: 4–18.
- TANNO K., WILLCOX G. (2006): The origins of cultivation of *Cicer arietinum* L. and *Vicia faba* L.: early finds from Tell el-Kerkh, north-west Syria, late 10th millennium B.P. *Vegetation History and Archaeobotany*, **15**: 197–204.
- TOLAR T., JACOMET S., VELUŠČEK A., ČUFAR K. (2010): Recovery techniques for waterlogged archaeological sediments: a comparison of different treatment methods for samples from Neolithic lake shore settlements. *Vegetation History and Archaeobotany*, **19**: 53–67.
- VASMER M. (1953): Russisches Etymologisches Wörterbuch, 1 (a–k). Carl Winters Universitätsverlag, Heidelberg.
- VASMER M. (1955): Russisches Etymologisches Wörterbuch, 1 (l–ssuda). Carl Winters Universitätsverlag, Heidelberg.
- VASMER M. (1958): Russisches Etymologisches Wörterbuch, 1 (sta–y). Carl Winters Universitätsverlag, Heidelberg.
- ZEVEN A.C., ZHUKOVSKY P.M. (1975): Dictionary of Cultivated Plants and Their Centres of Diversity. Centre for Agricultural Publishing and Documentation, Wageningen.
- ZOHARY D., HOPF M. (2000): Domestication of Plants in the Old World: the Origin and Spread of Cultivated Plants in West Asia, Europe and the Nile Valley. Oxford University Press, Oxford.

Received for publication October 24, 2013
Accepted after corrections February 25, 2014

Corresponding author:

Dr. ALEKSANDAR MIKIĆ, Institute of Field and Vegetable Crops, Novi Sad, Serbia;
e-mail: aleksandar.mikic@ifvcns.ns.ac.rs; aleksandar.mikich@gmail.com