

## Agronomic Benefits of Intercropping Pasture System

Emil VASILEV<sup>1</sup> and Viliana VASILEVA<sup>2\*</sup>

<sup>1</sup> Maize Research Institute, Knezha 5835, Bulgaria

<sup>2</sup> Institute of Forage Crops, General Vladimir Vazov Str. 89, Pleven, Bulgaria,

\* Correspondence:

; Mobile: +359(886)065461

Climate change shifts the distributions of a set of climatic variables, including temperature, precipitation, humidity, wind speed, sunshine duration, and evaporation. Climate change has created challenges for the agricultural sector, adding to pressures on global agricultural and food systems (Popović *et al.*, 2019). Consequent upon climate change, increasing frequency and duration of droughts strongly require adaptation of agricultural crops and their diversification under changed agro-pedological conditions. The permanent climate changes having occurred in the last decade requires to study species having pronounced resistance to unfavorable abiotic factors and good adaptive capacity towards the new conditions. Both, to develop and access new management practices in cultivation of plants are needed also. In this regard the mixed cropping is of importance and interest towards this system is rising in recent years. Mixed cropping has inbuilt advantage over certain environmental issues. They are more effective than pure grown in using environmental resources, better withstand adverse conditions, overcome weed problems and are more productive. Legume-supported cropping systems are particularly well-suited to building soil fertility and also provide assessment of positive environmental impacts and ensure development of a sustainable agro-ecosystem. Having in a mind the protein deficit is a fundamental challenge to the resilience, acceptance and performance of agri-food systems, legumes are essential to global plant protein supplies and many sustainable plant-based foods. The integration of both, annual and perennial legume crops (legume based mixtures) into the cropping systems is contribution to the high protein feed obtaining. In the work the agronomic benefits of legumes after their implementation into cropping systems was shown. Mixed cropping of agricultural crops is a contribution to the solutions to meet challenges related to climate change (e.g. extreme droughts in summers).

