Abstract

The objective of this work is to create a base of spectral characteristics of the monitored vegetation types and to create a classification of the land cover. In this work MERIS images obtained by KAGIK were used. Ten different categories of land cover were selected for the study. The spectral behaviour of all categories for the period April – November 2009 was determined. The spectral response of some defined categories (coniferous forests, developed areas) was stable during the year. Contrary to that, significant changes in the spectral response of agricultural crops were observed. The best results were obtained in the categories Forests and Oilseed rape. Finally, the method of Spectral Unmixing was also tested. This method is used when some pixels contain several cover types. Using this method the best result was also obtained in the category Forests. It is evident that the MERIS images can be used for monitoring land cover changes, but because of the coarse resolution only large and homogeneous areas can be studied.