Computer vision systems are already widely employed in different segments of agricultural production and industrial food production.It was identified that there are gaps to be filled with the develop– ment of intelligent devices that use computer vision and artificial in– telligence for automation of tasks in the field, as well as their integra– tion with agricultural machines and drones.Wheat, oat and barley cultivars, for instance, could benefit from a computer system that aims to reduce complexity and costs in the gluten– containing grains classification from images.Finally, our intention that this survey would present diverse appli– cations and techniques of machine learning, image and video proces– sing in order to motivate more researchers to apply them for solving agricultural problems currently open.Referen