In Kenya most of the baby corn crops are produced on un-mulched soil. The country experiences rainfall scarcity and extreme weather conditions which affect the productivity as well as the farmers’ income. Mulching and transplanting can be employed as a way mitigating against the two. Plastic mulch colour determines the characteristic optical properties that influence the levels of light radiation reaching the soil, causing increase or decreases in soil temperature thus affecting the performance of plants differently. Similarly, the colour has a direct effect on the amount and type of rays reflected back onto the plant leaves which influences photosynthesis. The experiment was conducted using two varieties Pan-14 and Thai-gold, four different plastic mulch colours and four different transplanting stages in Meru County in Kenya. This was conducted in two seasons of January to April and June to October 2018. After the scientific data analysis, it has proved that varietal differences influence various plant performances in baby corn. Also the plastic mulch film colour had an effect on plant growth and yield. Similarly, the interaction between the plastic mulch colour and baby corn variety influenced the plants performance. However, transplanting stage had no effect on plant performance.