

Abstract

There is no doubt that at present time in most developing countries, including Poland and other East-European countries, the market changed. Appearance of fruits and vegetables has a major influence on perceived quality. Therefore, color is one of most important quality parameter in consumer preferences. Fruits at growing differently exposed for sun are differently colored, frequently as unripe, reach full maturity just at handling or transport. Some fruits are still not ripe, having not uniform color of skin appearing green, others well exposed to sun at growing, in a short time are over saturated with red color. Because fruits of different maturity characterized by non-uniform color, the sellers prepare special packing (plastic or vinyl color nets) to improve appearance. The oranges, as well as, the vegetables: carrot, red beet, and parsley were used for the study of consumer estimation of product quality. To improve the estimation of fruit color, the nets of different producers used for packing of fruits and vegetable was tested. The measurements of brightness and chromaticity parameters were performed with Braise Instrument, 6016 supercolorTM colorimeter, according to the L*a*b* color system. The red net used for packing of oranges caused decrease at brightness parameter L* for all maturity fruits. However, some unripe and bright oranges, through the use of red net looks more matured. The chromaticity parameter a* is most influential factor affecting the human perception of fruit color. Red net improves this parameter significantly, that unripe yellow oranges become more saturated changing perception of color in to predicted range. Ripe and overripe fruits become more red. The color is insignificant to net color, however, is acceptable for human classification and quality assessment.