THE INFLUENCE OF MULCHING UPON THE DEVELOPMENT AND
THE QUALITY OF THE TOMATO PLANTS AND FRUITS
CULTIVATED IN SOLARIUM

Singureanu V., Al. S. Apahidean, Maria Apahidean, G. Moldovan, Csok Erzebet,
Cenariu Diana

University of Agricultural Science and Veterinary Medicine, 3-5 Mănăștur Street, Cluj-Napoca
e-mail: singvalentin@yahoo.com

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number of fruits in inflorescence

SUMMARY

The production of early crops in the vegetable growing sector is a pragmatic
desideratum off all producers. The mulching effect upon the soil is well studied across the
world an in our country, but the impact of the mulch upon the development of plants and
quality of the fruits tend to reveal the significant importance of this operation upon plants.

The experimental field was founded in 2006 in the vegetable sector at the Faculty of
Horticulture. The experiment was concived as a polifactorial experience. As a biological
material I used three tomato hybrids: Cronos F1, Shannon F1, and Menhir F1, two planting
schemes: 65/40 cm and 65/30 cm, two different types of mulching materials: black plastic
film, and straws.

The development of the plant was observed in two different stages: 4/05/2006 when I
observed the height of the plants, umber of leaves per plant, number of inflorescences per
plant, 11/07/2006 when I observed the aspects presented before plus the number of fruits per
inflorescence.

As for the quality of the tomato fruits it was observed in the food safety laboratory at
the Faculty of Horticulture in 13/07/2006, observing the specific mass of the fruits, the dry
substance, consistency in vitamin C, acidity of the fruits reported in percents of malic acid.

The quality of the fruits, to be more specific the specific mass obtained high values at
all mulched variants especially the variants mulched with straws. The highest value of
specific mass obtained the Menhir F1 tomato hybrid (1.0030 g/cm$^3$). As for the dry substance
of the fruits the highest values where obtained at the Shannon F1 tomato hybrid mulched with
straws (4.88 g/100 g fp), and the same hybrid mulched with black plastic film (5.2 g/100 g
fp). The vitamin C values where recorded the highest values 20.41 mg/100 g fp the Shannon
tomato hybrid mulched with straws and Menhir F1 hybrid unmulched. (19.28 mg/100 g fp).
The acidity of the fruits explained in % malic acid dropped at all three hybrids and at all the
systems of culture from the unmulched variant to the mulched variant with straws.

BIBLIOGRAPHY