



UNIVERSITY OF
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VEGETABLE CULTIVAR AND CULTURAL TRIALS 2005

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What to do with that straw mulch in your garlic patch ?

Fall planting garlic has the potential to increase yields, providing the crop survives the winter. Previous studies conducted by the University of Saskatchewan suggest that mulching fall-planted garlic with straw will improve overwinter survival and subsequent yields - especially in years or situations where the winter snow cover is limited. The straw mulch is typically removed early in the spring ... otherwise the soil is too slow to warm and crop development is delayed. **The question then arises ...what to do with all that used straw ? One answer may be ... put it back on again a bit later!** Garlic is a cool season, moisture-loving crop. Using the left over straw as a mulch between the rows should keep the soil cool and moist, while also suppressing weeds. In mid-June we took the straw that had previously been used as an overwinter mulch and spread it over one half of our garlic research trial. At that time, the garlic plants were already 30 cm tall. We attempted to direct the straw between the rows. Although some plants were lightly covered, wind action soon uncovered these plants. Any weed escapes in the straw mulched plot were controlled by hand weeding. The non-mulched plots were also hand weeded. The crop was harvested at maturity and yields and bulb quality assessed.

The 2005 growing season was relatively cool, with above normal rainfall. This resulted in excellent vigor and growth in the garlic trial. The mulching treatment appeared to delay maturity of the garlic crop. In the stiffneck types of garlic, this delay resulted in a 17% increase in total bulb yields. No corresponding yield benefit was observed when softneck types of garlic were mulched. Bulb color was often improved by the mulching treatment - but mulching also seemed to increase problems with bulb decay. Bulbs from the mulched areas seemed prone to falling apart, releasing the individual cloves.

In conclusion, using leftover straw appears to have both advantages and drawbacks. Greater benefits might be anticipated in a warmer year. Removal of the straw as the crop begins to mature may also be advisable.