

## Conclusions

There was a significant difference in yield due to both the mulch treatment and date of planting. Yield differences due to the mulch were not as significant as in 1963. Very poor stands were secured on the two earlier plantings under the petroleum mulch. Fifteen-foot sections of rows having equivalent stands were hand picked for yield, and in this case the petroleum mulched plots outyielded the black plastic. The yield results from date of planting treatments were completely opposite from what one would expect; the later planted plots outyielded the earlier ones. This may have been due to the unusually long, cool spring in 1964.

The temperature records show that there was a greater uptake of heat under the plots having petroleum and plastic mulch, and that the paper caused a reduction in temperature. The temperature differences were much greater during the early part of the test period. Later, the plants began to shade the ground and cut off the radiant energy input to the surface. A fairly good straight line regression equation can be written for yield on heat uptake and takes the following form:  $Y = 0.136 H + 78.92$  where, Y represents lint yield, and H is degree-hours per day.

Since there was so great a variance in results from 1963 and 1964 the test should be repeated for at least one more year with a view toward improving the stand under the petroleum mulch.

## Synthetic Mulch for Cotton Still of Interest

( W. E. Larsen )

Growers are looking for methods to improve the germination, emergence and early growth of cotton. Getting cotton off to a good start early in the spring does increase yields. Synthetic mulches of the asphalt spray or plastic type do help. Mulches show little advantage with late planted cotton. Growers and commercial companies are attempting to develop methods and materials that will allow them to use mulch without too much additional expense.