

## Strawberry Cultivation Techniques in Plastic House in Northeast China

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Strawberry production in plastic house in early spring has the characteristics of low investment, easy management, high yield and benefits. The harvest is one to two months earlier than in open field. The plastic house production has been widely used in northeast China. Major strawberry cultivation techniques in plastic house, including site and cultivar selection, nursery, fertilizer, water and temperature management, and pest control, were discussed in this paper. Two excellent strawberry cultivars 'Darselect' and 'Maliya' suited to plastic house were used. The technique of temporary planting in the open field could obtain robust strawberry plants. Some other cultivation techniques used together with the temporary planting could achieve high yield. These techniques include timely planting, rational density, temperature and humidity control, plant management, reasonable flower and fruit removal and integrated pest control.

## Strawberry Production under Different Plastic Mulches and Tunnels in Nonfumigated Fields in South Brazil

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In the Rio Grande do Sul, State in south Brazil, the current strawberry system production is based on the use of raised beds and drip irrigation. Beds are covered with black polyethylene to warm the soil and prevent weed growth, while single bed tunnels are covered with clear polyethylene to promote growth and prevent rain damage. North American short day varieties are the most common in this region, and growers do not use any soil fumigation treatments. The production season extends from June to December and the prices normally are below that of other regions because there is a high concentration of production in Rio Grande do Sul. However, in high elevation regions of the state, weather conditions and use of day-neutral cultivars permit off-season productions due to mild temperatures during the summer/autumn season (January to May), when strawberry fruit prices are favorable. In an attempt to improve summer strawberry production we evaluated 3 different colors (white, black and silver) of polyethylene bed mulch and two colors (white and translucent) of polyethylene used to cover low tunnels at Andreezza Farm, located in Caxias do Sul. We planted six plots, each with 500 plants (Aromas variety) using combinations of the three bed mulches (white, black and silver) and the two tunnel films that were either white or translucent. The experimental design was a randomized factorial with 3 bed mulches and two tunnel films. The harvest season began October 23 (2009) and ended on February 11 (2010). Plots that had white bed mulch under translucent tunnel film had 5% greater yield than, the silver bed mulch with translucent tunnel cover, and 20% greater than the white bed mulch combined with the white polyethylene tunnel cover. In conclusion, the combination of white polyethylene bed mulch and translucent polyethylene placed over low tunnels resulted in the largest yield increase in high altitude regions in Rio Grande do Sul State.