



6. Early summer squash (*Cucurbitapepo* L.) cv. Australian Green Bush production using low tunnel and black plastic mulch

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Name of Inventor

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Description of Technology

Hoops are used to construct small tunnels. They can be made from metal wire, plastic bars or wood. Place the hoops in the field once the raised beds are established and mulching is completed, at intervals of 2–3 m along the length of the beds. Position each hoop as a semi-oval reaching a height of 0.6–0.7 m. Loop string around the hoops to improve stability. Finally, place the cover over the hoops and fix the edges, usually with a layer of Soil along the entire length of the tunnel

COVERING MATERIALS

Thin (75–110 μm) disposable polyethylene films are the most common used covering material for early production of squash.



Impact

Plastic mulch in combination with low tunnel increased the yield (330.75q/ha) by 3.2 times than open field planting (105.45q/ha). Use of black plastic mulch in combination with low tunnel advanced the harvesting time by 25 days. Based on the findings of present investigation, it could be concluded that under *Kashmir* condition summer squash cv. Australian Green Bush transplanted on first March under low tunnel with Plastic gives maximum yield (330.75q/ha), early harvest (50.18 days) and maximum crop duration (120.20 days).

Commercial Applicability

Temperate climate of Kashmir valley limits cucurbits (Summer Squash) production to May through September. This represents a narrow window, since plants cannot be transplanted or seeded outdoors until after the last frost. Therefore, most growers plant and harvest at the same time, which drives price down negatively affecting their income

Low tunnels allow growers to start planting early, so they can harvest earlier, and receive a higher price for their produce before vegetable prices begin to decline in mid-season. Low tunnels modify the micro-environment around the plants, increasing soil and air temperature and reducing winds. As a result, plants grow faster, fruit mature 3–4 weeks earlier and yields are potentially higher compared with open-field cultivation.