Prof. Yuan reported on a methodology for increasing plant density while still maintaining maximum exposure of the rice plants to light and air. This involves arranging the hills in the triangular pattern as shown below and transplanting 3 seedlings separately in each hill, separated by 5-7 cm from each other.

In one direction (shown vertically below), the distance between hills (sets of 3 plants planted in a triangle) is 30 cm. The direct distance perpendicularly is 60 cm to the next hill, but because hills are staggered (alternating), creating a long diamond shape instead of a square, there is less plant density than if hills were all arranged in a square pattern.

Such an arrangement has advantages over placing one seedling per hill in a square pattern. First, more fertile tillers per hill can be achieved this way; second, panicles are bigger and relatively more even because most of them are from primary tillers.

The designer of this layout was Mr. Z. B. Liu of the Meishan Seed Company, who is the person who has achieved a record rice yield of 16 t/ha in Sichuan Province used this pattern of transplanting. He is manager of this seed farm which Prof. Yuan helped to establish for multiplication of hybrid seed.