

202009001

Researchers at Plant Genetic Systems N.V. in Belgium said they have developed a genetic engineering technique for creating hybrid plants for a number of key crops .

ev-w2833f1 ev-w918f3 ev-w750f1

202009002

The researchers said they have isolated a plant gene that prevents the production of pollen .

ev-w2833f1 ev-w1761f1 ev-w2382f2

202009003

The gene thus can prevent a plant from fertilizing itself .

ev-w2382f1 ev-w1305f1

202009004

Such so-called male-sterile plants can then be fertilized by pollen from another strain of the plant , thereby producing hybrid seed .

ev-w2340f1 ev-w1305f1

202009005

The new generation of plants will possess the flourishing , high-production trait known as " hybrid vigor , " similar to that now seen in hybrid corn .

ev-w2340f1 ev-w1810f2 ev-w2875f4

202009007

On a commercial scale , the sterilization of the pollen-producing male part has only been achieved in corn and sorghum feed grains .

ev-w2396f1 ev-w35f1

202009008

That s because the male part , the tassel , and the female , the ear , are some distance apart on the corn plant .

ev-w218f5_u_nobody ev-w218f7_u_nobody

202009009

In a labor-intensive process , the seed companies cut off the tassels of each plant , making it male sterile .

ev-w793f1 ev-w1923f2

202009010

They sow a row of male-fertile plants nearby , which then pollinate the male-sterile plants .

ev-w3071f1 ev-w2325f1

202009011

The first hybrid corn seeds produced using this mechanical approach were introduced in the 1930s and they yielded as much as 20 % more corn than naturally pollinated corn .

ev-w2396f1 ev-w1745f2 ev-w3682f4 ev-w2325f1

202009012

The vast majority of the U.S. corn crop now is grown from hybrid seeds produced by seed companies .

ev-w1517f2 ev-w2396f1

202009013

A similar technique is almost identical to apply to other crops , such as cotton , soybeans and rice .

ev-w218f2 ev-w119f2

202009014

The male part , the anthers of the plant , and the female , the pistils , of the same plant within a fraction of an inch or even attached to each other .

ev-w218f7_u_nobody ev-w157f1

