

## Excess crimes by mentally retarded on own

Mentally retarded persons increasingly receive encouragement to live independently, challenging the stereotype that they belong in institutions. A new study suggests that this laudable trend has a downside—mentally retarded men and women living in the community commit substantially more crimes of all types by age 30 than do people with no mental retardation or disorder.

Moreover, noninstitutionalized mentally retarded offenders of both sexes in a large Swedish sample were convicted, on average, of as many crimes and for the same types of offenses as nonretarded offenders, report Anne G. Crocker and Sheilagh Hodgins, both psychologists at the University of Montreal.

Evidence of higher crime rates among mentally retarded persons living independently should not be used to stigmatize this population as inherently delinquent, the researchers maintain. Instead, they say, it should spark efforts to identify and provide supervision for those mentally retarded individuals most likely to go astray.

The individuals convicted of offenses, whether they are mentally retarded or not, often had serious behavior problems during childhood, the researchers note.

"[Although] biological factors may con-

tribute in part to the development of conduct problems in mentally retarded children, studies of the effectiveness of socialization and training programs aimed at teaching such children alternatives to antisocial behavior are scientifically justified and urgently needed," contend Crocker and Hodgins.

Their investigation, published in the December *CRIMINAL JUSTICE AND BEHAVIOR*, focused on 15,117 people born in Stockholm in 1953. Of that number, 120 men and 87 women had been placed in classes for the mentally retarded while in elementary school but had lived outside of institutions since that time. Another 62 men and 32 women had lived in institutions for the mentally retarded for much of their lives; they did not commit enough crimes to merit inclusion in the data analysis. Criminal records through 1983 were collected from the Swedish national police register.

By age 30, 57 percent of mentally retarded men living in the community had been convicted of at least one crime, compared to 32 percent of the nonretarded men. This trend held for all types of offenses—violent crimes (such as rape and assault), thefts, frauds, vandalism, serious traffic violations (such as driving without a license), drug-related crimes,

and other offenses (including tax evasion and sexual crimes other than rape).

A comparable pattern characterized the women. By age 30, 14 percent of mentally retarded women living independently and 6 percent of nonretarded women had committed at least one registered offense.

The study provides a rare look at crime among mentally retarded women. In three categories—violent crime, fraud, and drug-related offenses—their rates were as high as those of nonretarded men.

Most male offenders committed their first crime before age 18, regardless of whether they were mentally retarded. Female offenders usually committed their first crime after age 18; the age at first conviction was especially high in the mentally retarded group.

These findings add to the evidence that crime rates generally rise as IQ scores decline (*SN*: 4/15/95, p. 232), comments psychologist Terrie E. Moffitt of the Institute of Psychiatry in London.

"It's not like you suddenly become more prone to crime when you fall below an arbitrary cutoff point that defines mental retardation," Moffitt says.

For mentally retarded people living on their own in modern societies, slowed thinking abilities may lead to stress, demoralization, or manipulation by unscrupulous peers, all of which could boost criminal behavior, Moffitt theorizes. —*B. Bower*

## Seedless wonders for winter markets

Any gardener who has planted squash has probably seen the midget and funky-shaped end-of-season fruits that form when some step in the pollination process is out of whack. The misshapen squash make good conversation pieces but are a disaster for the market.

A group of researchers in Europe has genetically engineered a way around the problems that arise when pollination conditions are less than ideal. Application of the technique might improve the look and lot of off-season vegetables. Angelo Spena of the University of Verona in Italy and his colleagues report their findings in the December *NATURE BIOTECHNOLOGY*.

To develop correctly, fruits need a growth hormone produced by their seeds. When fertilization fails and seeds don't form, fruits end up stunted and malformed. For commercial purposes, horticulturists sometimes apply plant growth hormone to the developing flowers to create normal-looking but seedless produce—tomatoes or cucumbers, for example.

Spena's team has instead altered eggplant DNA so that the fruit produces its

own growth hormone, with or without seeds. The researchers spliced together a gene from a bacterium, to produce the hormone, and a snapdragon gene that targets the part of the plant where fruit develops.

When they slipped this genetic package into the eggplant's DNA, the resulting plants bore normal-sized, elongated, purplish fruit. What's more, they bore fruit even under off-season conditions—when low light and low temperatures prevent marketable fruit from developing. "This is the major advantage," says Spena.

The system is also versatile enough to allow for both seedless eggplants and, if the flowers are pollinated, eggplants with seeds. The seeds are viable and carry the engineered trait, the researchers say.

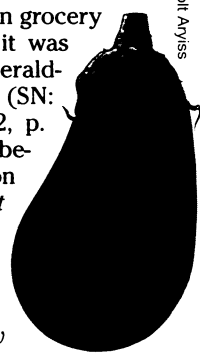
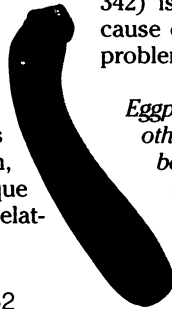
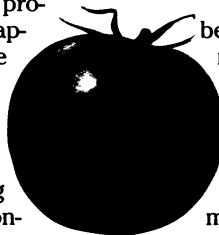
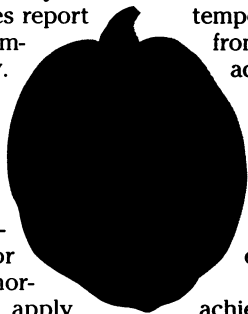
"It's certainly a significant achievement, and it could have potential in a range of different species and under different growth conditions," says Dwight T. Tomes of Pioneer Hi-bred in Johnston, Iowa. He suggests that the technique may work equally well in crops relat-

ed to eggplant, such as peppers, squash, and tomatoes. Spena's team has also used the technique in the easy-to-manipulate tobacco plant.

Although the researchers have begun to commercialize their technique, "it will probably take further development," says Tomes. Questions concerning such important features as yield and the stability of the transgenic trait in varied environments remain. No word has been published yet on the cost and taste of the engineered eggplant, although aficionado Spena attests that they "are very good roasted" and "excellent" for eggplant parmigiana.

Even the promise of good taste in genetically engineered produce won't ensure it a lasting place in grocery bins. Three years after it was introduced, the much-heralded Flavr Savr tomato (*SN*: 5/28/94, p. 432; 11/28/92, p. 342) is off the market because of mass production problems. —*C. Mlot*

*Eggplant, and perhaps other produce, can be genetically engineered to grow well off-season.*



Illustrations: Linda Holt Ayriss