The rate of the recessive markers in F_2's homozygous for gametophyte factors in our stocks was as follows: w = 25.4%; wx = 22.9; sh = 24.5; c = 25.1. If we assume that the ga pollen has a null or almost null functioning in heterozygotes (as suggested by various considerations), the "non-Mendelian" percentages of the markers may be a dependable indication of the crossover per cent between the gametophyte factor and the marker itself, with the exception of wx. Here, actually, the percentage in the C-phase should be increased to compensate for the reduced transmission of the wx gamete, but decreased because part of the ears showing zero wx kernels are known to be nevertheless Ga Wx/ga wx. The two factors practically neutralize each other. In the case of R-phase the wx per cent should be 40.2 x 25/22.9 = 43.9.

Consequently the crossover distance obtainable from the data reported above may be inferred as follows:

C-phase		R-phase	
w - ga:	4.4	-	
wx - ga:	8.0	Wx - ga:	12.2
sh - ga:	19.8	Sh - ga:	22.4
c - ga:	26.0	C - ga:	29.0

The values obtained with the coupling phase are lower than those derived from the repulsion phase. Whereas there is no explanation for this fact, if not due only to chance, some cytological observations made by M. Vetturini did not reveal the presence of any abnormality.

From the calculations reported, the linkage map of the genetic factors of chromosome 9 appears now as follows:

C 6 Sh 21 Ga_8 5 W 4 Wx

(Two estimates of the crossover rate between Wx and W in 1967 were 4.1 and 3.4).

A. Bianchi
M. R. Parlavecchio

UNIVERSITY OF MASSACHUSETTS
Amherst, Massachusetts

1. Early sweet-dent hybrids for summer food.

Twenty years ago Singleton, Jones and Everett described a new type of corn, sweet-dent silage, which was developed at the New Haven Station in Connecticut. Their studies showed that it was higher in animal feeding value than regular silage. Furthermore, some farmers reported that cows

preferred the sweet-dent silage to straight field corn silage.

In recent years we have used inbred CO-106 in some nutritional studies and during this period a curiosity developed to determine its potential when combined with certain sweet corn inbreds. CO-106 is a very early inbred and combinations were tested with a few early sweet corn lines such as Ma 21547, C5NT, and Ma 51.408.

Some of these hybrids and particularly CO-106 x Ma 21547 have demonstrated a remarkable degree of vigor considering the season of maturity. From plantings on May 11, the stalks develop to a height of about seven feet and the relatively large ears have developed to the dough stage during the latter part of July during the past two years. The plant habit allows for very close planting with subsequent high plant population.

This preliminary investigation dealing with the feasibility of early sweet-dent hybrids indicates they would not be competitive for silage but do give promise as a source of "summer-food" when many farmers are looking for nutritive and palatable forage for dairy cows.

(Research has been supported by NE-32 Regional funds)

W. H. Lachman
D. N. Maynard

UNIVERSITY OF MASSACHUSETTS
Waltham Field Station
Waltham, Massachusetts
Department of Environmental Sciences

1. String cob maize.

Grobman et al (1961) described the cob (rachis) of the tiny-eared, primitive Peruvian race, Confite Morocho, as having small, shallow cupules and as being no thicker than the rachis of the tassel. We have named this feature "string-cob" and we have transferred it to a sweet corn inbred which is designated Sc 51 because of its relationship to Purdue 51. The string-cob ears in their new background are longer than their normal P51 counterparts, uniquely slender and above average in tenderness and flavor.

This evolutionary retreat to recover the string cob condition may have certain economic advantages in modern sweet corn. The string cob ear is ideal for whole ear canning and freezing, the cob is easily disposed in a garbage grinder and the ear is more dainty for eating on the cob.

W. C. Galinat

2. Inheritance of string cob.

After the string cob feature was transferred to a sweet corn inbred (Sc 51) and then outcrossed to three other inbreds, its expression was