

Early Accounts of the Maximum Ear Length Seen in the Maize Subspecies; 1900-1925

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There is new information concerning the maximum ear length of the maize subspecies that comes from obscure sources.

1899

Just before 1900, the U.S. Department of Agriculture (USDA) Office of Experiment Stations reported seeing a dent cob that was 16" long (Sturtevant, USDA Off Exp Sta Bulletin 57:8, 1899). It may not have been of the Jala race, but Jala and Oloton cobs of 24" were soon procured by the Bureau of Plant Industry.

1907

Exactly 100 years ago (Kempton, *J Hered* 15 (8):343, 1924 a), one or two 22" Jala cobs were received (Kempton, Weatherwax files, Lilly Library, Indiana University, Bloomington, IN, 1950, generosity of N. Robinson). They were sent from Tepic by an acquaintance of the USDA (perhaps Magill, cf. GRIN; or the Tepic consul - Paul C. Mangelsdorf Papers. Harvard University Archives, 1940, Barbour to Mangelsdorf, Oct. 10).

At about the same time, the USDA itself collected [cobs] as long as those of Jala (24" maximum), most likely from near Trece (pronounced today say) Aguas (Figure 1), Guatemala (Kempton 1950; approximately between Livingston and Guatemala City; cf. Karl, *MNL* 82:33, 2008). The kernels were nearly round, deep yellow, and flint. Kempton mentioned this Olotón in his well-known Jala article in the *Journal of Heredity* (1924). Monograph associates found this Oloton too, but at that point (30 years had passed), the cobs were shorter.

1916

In the New Year of 1916, allusion was made to the Tepic cobs by USDA team member Guy Collins at the Pan American Congress (Collins, *Proc Sec Pan Am Sci Cong* 8:582 (Cons Nat Resources, Tues Jan 4, 9:30 A.M.), 1917). By 1924, the USDA had grown seed from the cobs for multiple seasons near Washington, D.C. (Kempton 1924 a) and at least once (Kempton, *J Agric Res* 28 (11):1095-1103, 1924 b and *J Agric Res* 32 (1):39-50, 1926) near San Diego. The Jala was increased by the Chula Vista plantings (facility information, Anonymous, *Field Activities, USDA BPI* p. 76, 246, 514, 1924, courtesy W. Olson, NAL) and ostensibly the D.C. greenhouse (cf. Jenkins, *USDA Yearbook of Agriculture*, p. 472, 1936, gratitude to J. Labate for copy; Collins, *J Hered* 7:106-118, 1916). In May 1924, a third USDA teammate, Longley (*J Agric Res* 28 (7):674, 1924), had an article referencing the Tepic seed, divulging that the maize was not polyploid; this was another allusion in the *Journal of Heredity* article to the USDA's works.

1925

Following the *Journal of Heredity* article, a sample of the seed was obtained by cooperators at the Guam station and cultivated in 1925 (Anonymous, *Guam Agric Exp Sta report*, p. 8, 10, 1926, gratitude Anonymous, NAL). There the cobs attained 15-in length and the plants approximately 15-ft height. It seems that in less than a decade, a genetic loss of the maize's substantial dimensions occurred.

Sources:

Anonymous 1924. Field Activities, USDA BPI p. 76, 246, 514. (Courtesy W. Olson, NAL)

Anonymous 1926. Guam Agric Exp Sta report, p. 8 and 10. (Gratitude Anonymous, NAL)

Collins 1916. J Hered 7:106-118.

1917. Proc Sec Pan Am Sci Cong 8:582 (Cons Nat Resources, Tues Jan 4, 9:30 A.M.).

Jenkins 1936. USDA Yearbook of Agriculture, p. 472. (Gratitude J. Labate)

Karl 2008. MNL 82:33.

Kempton 1924 a. J Hered 15 (8):337-344.

1924 b. J Agric Res 28 (11):1095-1103.

1926. J Agric Res 32 (1):39-50.

1950. Weatherwax files, Lilly Library, Indiana University, Bloomington, IN. (Generosity of N. Robinson)

Longley 1924. J Agric Res 28 (7):674.

Sturtevant 1899. USDA Off Exp Sta Bulletin 57:8.