

5533 Dorchester Ave
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Dear Barbara:

① I imagine you've heard via the grapevine, or otherwise, that since my retirement from administration three years ago, I've gone back to work on the origin of corn. I never believed the evidence was any good for Paul Mangelsdorf's tripartite hypothesis that teosinte is a recent (~~corn~~ remote) ~~corn~~ product of hybridization or that there was ever a wild corn of the kind he postulates from archeological evidence. I believed years ago that teosinte was a logical wild ancestor and still do.

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④ For three years now I've been accumulating evidence, mostly from F₂ and BC hybrids of various teosintes and corns. The recovery of good corns and good teosintes says no more than 4 or 5 independently segregating units. I agree that there are in some instances clusters of linked genes but that is to be expected from the repeated transfer of genes from teosinte to corn over the last 7000+ years in the areas where they coexist.

Last November 18 of us from 4 universities were down in the teosinte country of Mexico where we spent 126 man (one woman) days looking at and

⑤ collecting seeds from 75000 plants. Randolph was along - remarkably spry for his age - and so were anthropologists, ethnobotanists, taxonomists etc. Kato was a very effective person in charge of one group of 9. I think we all learned a good deal.

⑥ Knowing the cohabitation characteristics of corn and teosinte in the areas where they grow together as extensively documented by Garrison Wilkes who was along as leader of the second group, it seems to me that teosintes that grow in association with local corn types, and have for long periods, are bound to be ~~also~~ alike in many genes of the kind that do not differentiate them. Man keeps selecting out the good corn types that acquire hybrid vigor from the successive backcrosses of hybrids to corn and natural selection does the counterpart for successive backcrosses to teosinte. Thus to identify the essential genetic and cytological differences between the two, these are the logical populations to compare - those that coexist & have for long. Wilkes documents many vegetative characteristics

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that do this shuffling back and forth but of course these are not the ones essential for survival for the two extremes. ~~It~~

④ If I am correct, there is some published evidence that this sharing tends to exist for knobs. I know you have much evidence on this but Jim told lots that is not published. As a result of a good deal of recent work of Walt Galinat's (we've been keeping in close touch), Paul is changing his views fairly rapidly. I believe he has given up the corn \times *Trypsacum* origin of teosinte but not his wild corn. I believe the knob data can be very significant, ~~so~~ so I hope you are planning to summarize and publish ^{yours} before too long. In the meantime I'd be grateful to know how many comparisons of pairs of corn \times teosintes known to share the same areas for long times — i.e. ~~not~~ local lines of corn grown for long periods in an area where teosinte is abundant.

② If this is not available I think it would be very important to get it. You of course are the ideal person to do it but I realize

You may not have the time and energy
 to do more than you are already doing.
 I've been in close contact with Kato and
 he might be persuaded to do more. I know
him as a superb field man but I have
no idea how good he is as a cytologist. If
 these comparisons I suggest have not been made
 rather systematically - i.e., the data not collected,
 and you cannot be persuaded to do them, ~~is~~
 do you think Kato could? If so it would
 be good for both science and Kato. I rather
 get the impression he has not made a ^{really} good
 niche for himself at CIMMYT and I'd
 like to see him do it.

In the genetic work in which I've grown
 populations of ca. 40,000 plants in
 Mexico, Mario Gutiérrez of CIMMYT
 has been a superb collaborator. Whenever
 he is in charge, I know things will be right.

Maribel and I are now in Davis
 Calif where we are doing a 2 week stand as
 co-visiting lecturers on such subjects as
 Urban Renewal (both) Pre-school Years (M)

(12) 1-Larpe Court (a ^{M.} not-for-profit artisans center in Chicago in which mural has played a key role), History of Biochem Genetics (2) and The Origin of Corn (2). One week is gone and we find it very stimulating. We see a lot of Dobie, Hedyard Stebbins, Charles Rick and some of Allard who's head of the Dept. Will be back in Chicago about Febr.

(13) I have an part time appointment at the U of Chi but have given up a 1/4-1/2 time job as Pres of the Chi Herb Soc which I took pending a permanent full time one. Now we have Louis Martin from Brooklyn Botanical coming so I'll have pretty much full time for corn work.

I hope all goes well with you. I know, whatever you are doing, you'll be doing it with the devotion energy and effectiveness ^{with which} you've always worked. Now that I'm on corn again, I think of ten more often for I always did - about those good old days at Cornell. Regards Beets