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AGRICULTURAL RESEARCH
NORTHEASTERN REGION
BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

March 14, 1980

SUBJECT: Confusion in Crossosoma

TO: Matthew Suffness
NCI

Enclosed is a history of information related to Crossosoma procurement and screening.

My observations on Crossosoma in the field (1972, 1973 and 1978), my conclusions from studying herbarium specimens of Crossosoma at the University of Arizona (1973), Sandy's reidentification of PR-36869 (5/22/78) and her communication with Dr. Mason (4/5/78) suggest that this genus consists of two species and one variety: C. bigelovii var. bigelovii, C. bigelovii var. glaucum and C. californicum.

The CPAM shows the following:

- C. bigelovii (B-658291, st-1f-1l-fr - fresh) from Pima County, Arizona as under fractionation in PS. Dr. Cole has made reference to this as active in KB (.53), a confirmed active in WM and inactive in 3PS. We have no voucher specimen of the original. KB activity could be based on samples collected in California.
- C. parviflorum (B-609807, Px) from Mohave County, Arizona. This is listed as a confirmed active in KB. If we accept the above interpretation of species in Crossosoma, then C. parviflorum would be synonymous with C. bigelovii var. bigelovii. In Lloyd Spetzman's letter dated April 10, 1970, he requested a voucher specimen of C. parviflorum, among others. I believe the photo found in our files (copy enclosed) is of the voucher documenting the original collection, which was from the Black Hills between Kingman and Oatman in Mohave County, Arizona.

Two recollections were made during March 1973 from the Black Hills but only one was accessioned by this Laboratory, Richard Wiedhopf collected 22 pounds one week prior to my collection of 53 pounds (personal communication with Wiedhopf, 1973). Dr. Cole frequently acknowledged receipt of recollections (without reference to PR-numbers) in his progress reports but no large samples or recollections were mentioned under Crossosoma. Sandy reidentified my recollection,

PR-36869 (memo dated 5/22/78), but it should be realized that PR-36869 came from the same location as the original.

Other samples of C. bigelovii have been collected in California. PR-25357 (.75 lb., tw-1f-fr minus sd) and PR-25376 (50 lbs., tw-1f-fl-fr) were collected in Yucca Valley and Morongo Valley, California. Sometime ago (possibly in September 1972), I inquired about activity in these samples. Richard Wiedhopf indicated (by telephone) that they found KB activity in California samples but they were specifically interested in C. parviflorum. It was also indicated that activity in C. bigelovii was inconsistent (perhaps this comment reflects samples of C. bigelovii from different locations). In 1978, I again collected C. bigelovii (PR-49909-10), but this time I separated the leaves and fruits from the stems. The latter samples are from Morongo Valley and were sent to Raltech.

Our records indicate that Dr. Cole requested 50 pounds of C. parviflorum in April 1970. In July 1975, Dr. Douros indicated that Dr. Cole wanted 100 pounds of C. parviflorum. Between 1970 and 1975 recollections were made in both California and Arizona but reference to C. parviflorum must mean that PR-36869 was good stuff. Dr. Cole in his progress reports has indicated 3PS activity with a T/C of 137. Unfortunately, during a reconnaissance of the Black Hills in 1978, I saw very little accessible C. parviflorum available. I did collect about five pounds but later discarded this when I couldn't find anymore. Additional material, then, will have to come from another location. Can we positively eliminate locations for C. bigelovii based on PR-25357, PR-25376, PR-49909-10 and B-658291?

Suggestions:

Change PR-36869 to C. parviflorum; or change B-609807 to C. bigelovii.

Where one or more recollections have been made, it might help to make reference to PR-numbers listing these in order of preference or indicating no preference.

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cc:
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