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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NORTHEASTERN REGION
AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

May 23, 1977

Subject: Plants Needed from Kenya and Tanzania - cf. Handwritten Request Dated 5/12/77

To: R. E. Perdue, Jr., Chief
Medicinal Plant Resources Laboratory

I received a handwritten memorandum on May 19 asking me to check those plants, active from Kenya and Tanzania, which will not be possible to collect.

I cannot say which plants are impossible to collect, but, perhaps, probability ratings will be useful to you.

The attached list of active species and plant parts indicates probabilities of obtaining a collection according to weight ranges. Probabilities were arbitrarily divided into six categories: 1-5%, 6-10%, 11-33%, 33-66%, 67-90%, and 90-99%. Weights (in pounds) were divided into five categories: 5-25, 25-100, 100-300, 300-500, and 500+.

Each species and the desired plant part was given a probability rating according to weight ranges that are applicable (up to 100# for low priority, 300# for medium priority, and 500# for high priority). For example, Berberis holstii (on the first page) is rated a low priority plant. I feel that there is a 90-99% chance that one can obtain 5-25# of roots, a 67-90% chance that one can obtain 25-100# of roots and a 33-66% chance that one can obtain 100-300# of roots.

The probability ratings assigned were based on the following criteria:

1. Plants which have been reviewed in the literature and/or observed in the field. An asterisk indicates those species which I have seen in the field.

2. That one can go anywhere in Kenya and Tanzania, including National Parks and Game Reserves, for any particular species.

3. Allows only one day reconnaissance in one selected geographical area during one phase of a season.

The probabilities indicated can increase with:

A. Further literature and herbarium studies.

B. Visits to one area during different seasons.

C. Reconnaissance in more than one geographical area; or more than one day allowed for reconnaissance.

D. Substitution of plant parts that are more practical to collect.

The probabilities indicated can decrease with:

A. Restrictions to working in selected geographical areas in both countries.

B. Restrictions to just one country.

C. Less than one day devoted to searching for a specific plant.

Some species will be difficult to obtain because correct identification will depend on the presence of leaves, flowers and/or fruits. Examples of these are: Abutilon longicuspe, Aeschynomene rubrofarinacea, Commiphora spp., Crotalaria lachnocarpoides, Cucumis globosus, Ixora latituba, Acacia mearnsii, Acalypha stuhlmannii, Aeschynomene stolzii, Chenopodium procerum, Ximenia caffra, Gardenia jovis-tonantis, Hibiscus aponeurus, Periploca linearifolia, Strophanthus spp., and Psychotria spp.

Plants and plant parts assigned to the 1-5% probability rating according to the required weights needed are:

Ekebergia benguelensis - rb, sb
Acacia mearnsii - fr
Acanthospermum glabratum - rt-st-lf-fl-fr
Aeschynomene stolzii - lf
Chenopodium procerum - st-fr
Peddiea fischeri - rt, lf
Peddiea volkensii - sb
Schizozygia coffaeoides - lf
Crinum kirkii - bu-st-lf-fl
Hibiscus aponeurus - rt
Strophanthus courmontii - ws-sb
Tabernaemontana (P-9419)
Psychotria bagshawei - ws-sb, lf-fr

Species that fall into the 90-99% probability range include:

Maytenus senegalensis
Afrocrania volkensii
Agauria salicifolia
Ximenia caffra
Gnidia kraussiana
Psorospermum febrifugum
Fagara chalybea
Lepidotrichilia volkensii

Prunus africana
Phoenix reclinata
Warburgia salutaris
Tabernaemontana ventricosa

Of those collections rated, we can expect to obtain 20%. This figure may seem low in comparison to previous experience in Africa; however, there is a greater percentage of plants or plant parts that pose difficulties. Also, the weight required has increased up to five-fold. In the past, we have been able to obtain 80% of the collections according to the weight requirements of 100 pounds per collection. If the requirement was still 100 pounds per collection, I estimated that 60% of the collections could be collected.

Richard W. Spjut, Botanist
Medicinal Plant Resources Laboratory

Enclosure

cc:
M. S. Hatcher
A. S. Barclay

RE-COLLECTIONS NEEDED FROM TANZANIA 5/12/77

Low Priority

*Field Experience
% = % Probability

		WEIGHT				
		5-25	25-100	100-300	300-500	500+
Abutilon longicuspe	sb					
Acacia melanoxylon	sb					
Aeschynomene rubrofarinacea	sb					
" "	tw					
Baphia kirkii	st					
" "	fr					
Berberis holstii*	rt	90-99%	67-90%	33-66%		
Commiphora pteleifolia *	st	33-66%	33-66%	33-66%		
Crassocephalum rubens	rt					
Crotalaria lachnocarpoides	rt-st-lf					
Cucumis globosus	fr	33-66%	11-33%	6-10%		
Diospyros cornii	st					
Ekebergia benguelensis *	rb	67-90%	1-5%			
" "	sb	"	"			
Hypoestes verticillaris *	rt-st-lf	90-99%	90-99%	67-90%		
Isoberlinia tomentosa	rt-tw					
Ixora latituba	sb					

		WEIGHTS				
		5-25	25-100	100-300	300-500	500+
Lantana trifolia	rt					
"	tw					
Maytenus senegalensis*	ws	90-99%	90-99%	90-99%		
Parkia filicoidea	pods & sd					
Physalia peruviana	rt-st-lf-fr					
Saba florida	st					
" "	tw					
Sphenoclea zeylanica	rt-st-tw-lf					
Spirostachys africana	st					
Impatiens spp. (Winters)						

RE-COLLECTIONS NEEDED FROM TANZANIA 5/12/77

Medium Priority

Acacia mearnsii*	fr	33-66%	6-10%	1-5%	--
Acalypha stuhlmannii	pl	67-90%	67-90%	67-90%	33-66%
Acanthospermum glabratum*	rt-st-lf-fl-fr	90-99%	67-90%	1-5%	--
Aeschynomene stolzii	lf	33-66%	1-5%	--	--
Afrocrania volkensii	sb	90-99%	90-99%	90-99%	90-99%
Agauria salicifolia	sb	90-99%	90-99%	90-99%	90-99%
Bridelia niedenzui	rt				
" "	lf				

		WEIGHTS				
		5-25	25-100	100-300	300-500	500+
Chenopodium procerum*	st-fr	67-90%	33-66%	1-5%	--	
Combretum sp. (P-11652)	sb					
Excoecaria bussei	sb					
Fagara sp. (P-11264)	rt					
" " "	sb (low)					
" " (P-11331)	sb					
Hypoxis obtusa						
Hypoxis spp. (mixed)*	tu-lf-fl	90-99%	90-99%	67-90%	33-66%	
Kalanchoe sp. (P-11153)	rt-st-lf					
Macaranga kilimandscharica	fr	33-66%	33-66%	?	?	
Maprounea africana	rt	90-99%	90-99%	67-90%	33-66%	
" "	st (low)	90-99%	90-99%	90-99%		
Millettia oblata ssp. intermedia	rt					
" " "	st					
Monanthotaxis buchananii	tw	67-90%	67-90%	33-66%	11-33%	
Parinari curatellifolium	fr	33-66%	33-66%	33-66%	33-66%	
Peddiea fischeri	rt	11-33%	11-33%	6-10%	1-5%	
" "	ws (low)	11-33%	11-33%	11-33%		
" "	lf (low)	11-33%	6-10%	1-5%		
Tephrosia nyikensis ssp. nyikensis	fr					
" " "	sd (low)					
Uvaria kirkii	tw-lf					
" "	rt (low)					
" "	lf					
Ximenia caffra*	ws-sb	90-99%	90-99%	90-99%	90-99%	
" "	rt (no priority)					

		WEIGHTS				
		5-25	25-100	100-300	300-500	500+
High Priority						
Bersama rosea	rt					
Bridelia brideliifolia	rt					
Gardenia jovis-tonantis	tw	33-66%	33-66%	33-66%	33-66%	33-66%
Gnidia kraussiana *	st-lf-fl-fr	90-99%	90-99%	90-99%	90-99%	90-99%
Psorospermum febrifugum var. febrifugum *	rt	90-99%	90-99%	90-99%	90-99%	90-99%
	sb	90-99%	90-99%	90-99%	?	?

RE-COLLECTIONS NEEDED FROM KENYA 5/12/77

Low Priority

Acacia mearnsii *	sb	33-66%	33-66%	6-10%		
Crassocephalum mannii *	if	33-66%	11-33%	6-10%		
Fagara chalybea *	tw	90-99%	90-99%	90-99%		
Impatiens spp. (Winters)						
Lepidotrichilia volkensii * (no priority Jacobson)	sb	90-99%	90-99%			
Macrorungia pubinervia	rt					
" "	tw					
Oxyanthus speciosus *	tw	90-99%	90-99%	67-90%		
Peddiea volkensii.	sb	11-33%	6-10%	1-5%		
" "	tw	11-33%	11-33%	11-33%		
~~Pygeum~~ Prunus africana (no priority Jacobson)	sb	90-99%	90-99%			

		WEIGHTS				
		5-25	25-100	100-300	300-500	500+
Sapium ellipticum	sb					
Schizozygia coffaeoides*	tw	90-99%	67-90%	33-66%		
" "	lf	33-66%	1-5%	--		
Teclea trichocarpa*	sb	67-90%	67-90%	33-66%		
Tiliacora funifera	rt					
" "	tw					
Medium Priority						
Commiphora boiviniana var. crenata*	tw	33-66%	33-66%	11-33%	6-10%	
Crinum kirkii *	bu-st-lf-fl	11-33%	6-10%	1-5%	--	
Euphorbia candelabrum *	rt	90-99%	90-99%	67-90%	33-66%	
Hibiscus aponeurus *	rt	1-5%	--	--	--	
Hypoestes verticillaris *	rt-st-lf-fl	90-99%	90-99%	67-90%	67-90%	
Periploca linearifolia	st-lf					
Phoenix reclinata *	rt-lf	90-99%	90-99%	90-99%	90-99%	
Sansevieria ehrenbergii	st-lf					
Strophanthus courmontii	ws-sb	11-33%	6-10%	1-5%	--	
Strophanthus kombe	sd					
Tabernaemontana sp. (P-9419) (poss. T. holstii or T. johnstonii)		1-5%	--	--	--	
Tacazzea galactogoga	tw-lf-fr					
Warburgia ugandensis	sb	90-99%	90-99%	90-99%	90-99%	

		WEIGHTS				
		5-25	25-100	100-300	300-500	500+
High Priority						
Maytenus buchananii*	sd (10#)					
Psychotria bagshawei	ws-sb	1-5%	--	--	--	--
" "	lf-fr (low)	1-5%	--	--		
Tabernaemontana ventricosa*	rt	90-99%	90-99%	90-99%	67-90%	33-66%
	ws-sb	90-99%	90-99%	90-99%	90-99%	90-99%