

Contents

Loss of plant diversity: a call for action	ix
<i>H. Zedan</i>	
List of acronyms and abbreviations	xv
1. A brief history of plant germplasm collecting	1
<i>Co-sponsors</i>	
2. Legal issues in plant germplasm collecting	13
<i>Co-sponsors</i>	
3. An introduction to plant germplasm exploration and collecting: planning, methods and procedures, follow-up	31
<i>J.M.M. Engels, R.K. Arora and L. Guarino</i>	
I BEFORE SETTING OUT	
4. Assessing the threat of genetic erosion	67
<i>L. Guarino</i>	
5. A basic sampling strategy: theory and practice	75
<i>A.H.D. Brown and D.R. Marshall</i>	
6. Strategies for the collecting of wild species	93
<i>R. von Bothmer and O. Seberg</i>	
7. Classifications of intraspecific variation in crop plants	113
<i>P. Hanelt and K. Hammer</i>	

8.	Sources of information on existing germplasm collections <i>M.C. Perry and E. Bettencourt</i>	121
9.	Published information on the natural and human environment <i>G.C. Auricht, R. Reid and L. Guarino</i>	131
10.	Published sources of information on wild plant species <i>H.D.V. Prendergast</i>	153
11.	Aids to taxonomic identification <i>N. Maxted and R. Crust</i>	181
12.	Secondary sources on cultures and indigenous knowledge systems <i>L. Guarino</i>	195
13.	Bibliographic databases for plant germplasm collectors <i>J.A. Dearing and L. Guarino</i>	229
14.	Ecogeographic surveys <i>N. Maxted, M.W. van Slageren and J.R. Rihan</i>	255
15.	Mapping the ecogeographic distribution of biodiversity <i>L. Guarino</i>	287
16.	Geographic information systems and remote sensing for plant germplasm collectors <i>L. Guarino</i>	315
17.	Plant health and germplasm collectors <i>E.A. Frison and G.V.H. Jackson</i>	329
 II IN THE FIELD		
18.	Collecting plant genetic resources and documenting associated indigenous knowledge in the field: a participatory approach <i>L. Guarino and E. Friis-Hansen</i>	345
19.	Gathering and recording data in the field <i>H. Moss and L. Guarino</i>	367
20.	Collecting and handling seeds in the field <i>R.D. Smith</i>	419
21.	Collecting vegetatively propagated crops (especially roots and tubers) <i>Z. Huaman, F. de la Puente and C. Arbizu</i>	457

22.	Collecting vegetative material of forage grasses and legumes <i>N.R. Sackville Hamilton and K.H. Chorlton</i>	467
23.	Collecting woody perennials <i>FAO Forest Resources Division</i>	485
24.	Collecting <i>in vitro</i> for genetic resources conservation <i>L.A. Withers</i>	511
25.	Collecting pollen for genetic resources conservation <i>F.A. Hoekstra</i>	527
26.	Collecting <i>Rhizobium</i> , <i>Frankia</i> and mycorrhizal fungi <i>R.A. Date</i>	551
27.	Collecting herbarium vouchers <i>A.G. Miller and J.A. Nyberg</i>	561
III BACK AT BASE		
28.	Processing of germplasm, associated material and data <i>J.A. Toll</i>	577
29.	Reporting on germplasm collecting missions <i>J.A. Toll and H. Moss</i>	597
IV CASE-STUDIES		
30.	Collecting tropical forages <i>R. Reid</i>	617
31.	Surveying <i>Mangifera</i> in the tropical rain forests of southeast Asia <i>J.M. Bompard</i>	627
32.	Collecting Andean root and tuber crops (excluding potatoes) in Ecuador <i>R. Castillo and M. Hermann</i>	639
33.	Collecting the <i>Musa</i> gene pool in Papua New Guinea <i>S. Sharrock</i>	647
34.	Collecting the rice gene pool <i>D.A. Vaughan and T.T. Chang</i>	659
35.	Collecting wild species of <i>Arachis</i> <i>J.F.M. Valls, C.E. Simpson and V. Ramanatha Rao</i>	677

36.	Collecting rare species in Florida <i>S.R. Wallace</i>	685
37.	KENGO's Genetic Resources Conservation Project <i>G. Arum and K. Kiambi</i>	691
38.	Interdisciplinary collecting of <i>Ipomoea batatas</i> germplasm and associated indigenous knowledge in Irian Jaya <i>G.D. Prain, Il Gin Mok, T. Sawor, P. Chadikun, E. Atmodjo and E. Relwaty Sitmorang</i>	695
39.	Collecting by the Institute of Plant Genetics and Crop Plant Research (IPK) at Gatersleben <i>K. Hammer, R. Fritsch, P. Hanelt, H. Knüpffer and K. Pistrick</i>	713
	Index	727