APPENDIX II

An Artificial Key to the Identification of 'Rabi' Weeds

Plants with yellow flowers. .... Key I

Plants with white flowers. .... Key II

Plants with pink, rose or red. .. ... Key III

Plants with blue, purple or violet. ... ... Key IV

Plants with green or greenish-white. ... ... Key V

Plants which could not be placed in any one of the above groups.. ... Key VI

Key I

1. Flowers in heads:
   2. Plants erect:
      3. Leaves oblong - lanceolate with rounded auricles. . . . . *Vicoa indica*
      3. Leaves runcinate - pinnatified with spreading acute auricles. . . . . *Sonchus oleraceus*

2. Plants prostrate, or ascending:

4. Leaves mainly radical, heads subracemosely arranged on the peduncle...*Launaea nudicaulis*

4. Leaves mainly cauline, alternate or opposite:

5. Leaves alternate; heads usually solitary, peduncles short. . . . *Grangea maderaspatana*

5. Leaves opposite; heads on long peduncles. . . . . *Tridax procumbens* (In *Tridax procumbens* outer florets sometimes white)

1. Flowers in racemes:

6. Flowers regular or almost regular:

7. Leaves simple:

8. Flowers biserual:

9. Petals free, corolla cruciform. . . . . *Brassica juncea*

9. Petal united, corolla rotate. . . . . *Verbascum chinense*

8. Flowers unisexual:

10. Plants erect. . . . *Chrozophora rottleri*

10. Plants prostrate. . *C. Prostrata*

7. Leaves palmately compound. . . . . *Cleome viscosa*

6. Flowers irregular:

11. Flowers very small, papilionaceous. . . . . *Melilotus indica*

11. Flowers neither small nore papilionaceous:

12. Gland of the leaf-rachis solitary, inserted below, not between, the leaflets. . . . . *Cassia occidentalis*

12. Glands between the two lowest pairs of leaflets. . . . . *C. tora*

1. Flowers generally solitary or few, not in heads or racemes:

13. Flowers bisexual:

14. Flowers irregular; stamens definite:

15. Plants prostrate. . .*Heylandia latebrosa*

15. Plants erect or assending.....
. . . . . *Polygala erioptera*
(A rose-coloured variant of *P. erioptera* was frequently noted)

14. Flowers regular:

16. Stamens definite:

17. Leaves simple:

18. Plants prostrate, rooting or not rooting at nodes:

19. Plants succulent, leaves obovate or spathulate. . . . .
. . . . *Portulaca oleracea*

19. Plants not succulent, leaves reniform..... . ..
. . . . . .*Merremia* ~~*emarginata*~~ *gangetica*

18. Plants usually erect:

20. Plants succulent; berries with persistent inflated calyx... *Physalis minima*

20. Plants not succulent; fruist a capsule. . . . . *Vahlia digyna*

17. Leaves compound:

21. Leaves pinnately compound. . . . . *Tribulus terrestris*

21. Leaves palmately 3-foliolate. . . . . *Oxalis corniculata*

16. Stamens indefinite:

22. Stamens free. . . *Argemone mexicana*

22. Stamens monadelphous:

23. Carpels less than 10:

24. Petioles spiny at the base. . . *Sida alba*

24. Petioles not spiny at the base. . . *S. acuta*

23. Carpels more than 10. . . . . *Abutilon indicum*

13. Flowers unisexual; leaves subsessile and often overlapping. . . . . *Phyllanthus fraternus*

Key II

1. Plants parasitic:

   2. A total root-parasite; inflorescence a spike. . . . . *Orobanche cernua* var. *nepalensis*

   2. A total stem-parasite; flowers in cymose clusters; . . . . . *Cuscuta chinensis*

1. Plants not parasitic:

   3. Leaves palmately compound:

      4. Leaves generally 3 - foliolati; flowers irregular. . . . . *Melilotus alba*

      4. Leaves generally 5 - foliolate; flowers regular. . . . . *Cleome gynandra*

   3. Leaves simple:

      5. Corolla bilabiate:

         6. Lower lip of corolla not longer than the upper lip. . . . . *Ocimum americanum*

         6. Lower lip of corolla longer than the upper lip. . . . . *Leucas aspera*

      5. Corolla not bilabiate;=

         7. Leaves usually opposite:

            8. Flowers in capitula:

               9. Capitula 1 or 2, axillary. . . . . *Eclipta prostrata*

               9. Capitula in corymbs or panicles. . . . . *Ageratum conyzoides*

8. Flowers not in capitula:

10. Flowers in condensed spikes:

11. Plants rooting at the nodes:

12. Condensed spikes sessile. . . . . . . *Alternanthera sessilis*

12. Condensed spikes on a long axillary pedunile. . . . . .

11. . . . . *Phyla nodiflora*

11. Plants not rooting at the hodes. . . . . *Gomphrena celosioides*

10. Flowers not in condensed spikes:

13. Flowers usually solitary:

14. Flowers sessile, deeply sunken. . *Trianthema portulacastrum*

14. Flowers pedunculate, not sessile...*Bergia odorata*

13. Flowers in flat-topped cymes. . . . . *Polycarpaea corymbosa*

7. Leaves arternate:

15. Leaves pinnatisect...*Lepidium sativum*

15. Leaves entire:

16. Plants erect:

17. Flowers in short, axillary spikes... . . . . *Aerva lanata*

17. Flowers in extra-axillary cymes.... . . . . .*Solanum nigrum*

16. Plants prostrate or ascending:

18. Flowers solitary or few, axillary:

19. Leaves very hairy, crisped... . . . . .*Coldenia procumbens*

19. Leaves villous, not crisped.. . . . . *Convolvulus microphyllus*

18. Flowers in uniparous cymes..... . . . . *Heliotropium supinum*

7. Leaves radical, cylindrical and fistular; flowers racemose on a branched scape. . . . . *Asphodelus tenuifolius*

Key III

1. Leaves pinnately compound. . . . *Indigofera linnaei*

1. Leaves simple:

2. Leaves alternate:

3. Flowers in capitula or heads:

4. Leaves broad, long-petiolate. . . . . *Xanthium strumarium*

4. Leaves narrow, spinous-toothed..... ..... *Tricholepis glaberrima*

3. Flowers not in capitula or heads:

5. Flowers in spikes:

6. Spikesclose, cylindric. . . . . *Celosia argentea*

6. Spikes lax. . . . . *Digera muricata*

5. Flowers solitary or few, axillary, or in clusters:

7. Flowers irregular.... Polygala erioptera

7. Flowers regular:

8. Corolla tube 2-5 cm. long:

9. Plants rooting at nodes, trailing on mud. . . . . Ipomoea aquatiea

9. Plants not rooting at nodes, stems turning...Convolvulus arvensis

8. Corolla tube less than 2 cm. long:

10. Flowers in clusters in the upper axils... Cressa cretica

10. Flowers solitary or few, axillary; stems flower-bearing from near the base..... Convolvulus microphyllus

2. Leaves opposite:

11. Flowers irregular in globose or elongate spikes. . . . . Phyla nodiflora

11. Flowers regular:

12. Flowers solitary or few, axillary:

13. Flowers pedunculate. . . . . Bergia odorata

13. Flowers sessile, almost sunken. . . . . Trianthema portulacastrum

12. Flowers in umbels arranged in corymbose panides. . . . . Boerhavia diffusa

Key IV

1. Flowers irregular:

   2. Leaves pinnately compound; flowers in racemes. . . . . *Tephrosia hamiltonii*

   2. Leaves simple:

      3. Flowers axillary solitary or in terminal few-flowered racemes. . . . . *Stemodia viscosa*

      3. Flowers in dense whorls, distant below and close above. . . . . *Anisomeles indica*

1. Flowers regular:

   4. Flowers in capitula or heads:

      5. Leaves opposite. . . . . *Ageratum conyzoides*

      5. Leaves alternate:

         6. Pappus 2 - many seriate. . . . . *Vernonia cinerea*

         6. Pappus uniseriate.... *Blumea mollis*

   4. Flowers not in capitula or heads:

      7. Leaves opposite; flowers axillary, showy; fruits opening transversely. . . . . *Anagallis arvensis* var. *coerulea*

      7. Leaves alternate:

         8. Flowers 1 or 2, axillary; tiny, prostrate plants. . . . . *Evolvulus alsinoides*

         8. Flowers usually in cymes; plants sturdy, not tiny:

9. Prickly herb; flowers deep purple; anthers yellow; berries round, yellow. . . . . *Solanum surattense*

9. Herb with stiff hairs; flowers and fruits not as in above. . . . . *Trichodesma amplexicaule*

Key V

1. Leaves opposite; flowers in spikes. . . . . *Achyranthes aspera* var. *porphyristachya*

1. Leaves alternate:

2. Flowers in racemosely arranged whorls; stipules ocreate. . . . . *Rumex dentatus*

2. Flowers in axillary and terminal spikes:

3. Plants spiny. . . . . *Amaranthus spinosus*

3. Plants not spiny:

4. Flowers usually bisexual; leaves thick and fleshy. . . . . *Chenopodium album*

4. Flowers unisexual or polygamous; leaves not thick or fleshy.....*Amaranthus viridis*

Key VI

1. Plants prostrate, nearly glabrous. . . . . *Euphorbia bombaiensis*

1. Plants erect:

   2. Leaves all opposite..... *E. hirta*

   2. Leaves alternate, but the upper ones opposite:

      3. Involucre with a single, large gland. . . .. *E. geniculata*

      3. Involueral glands 2 - horned, not large. . . . . *E. dracunculoides*