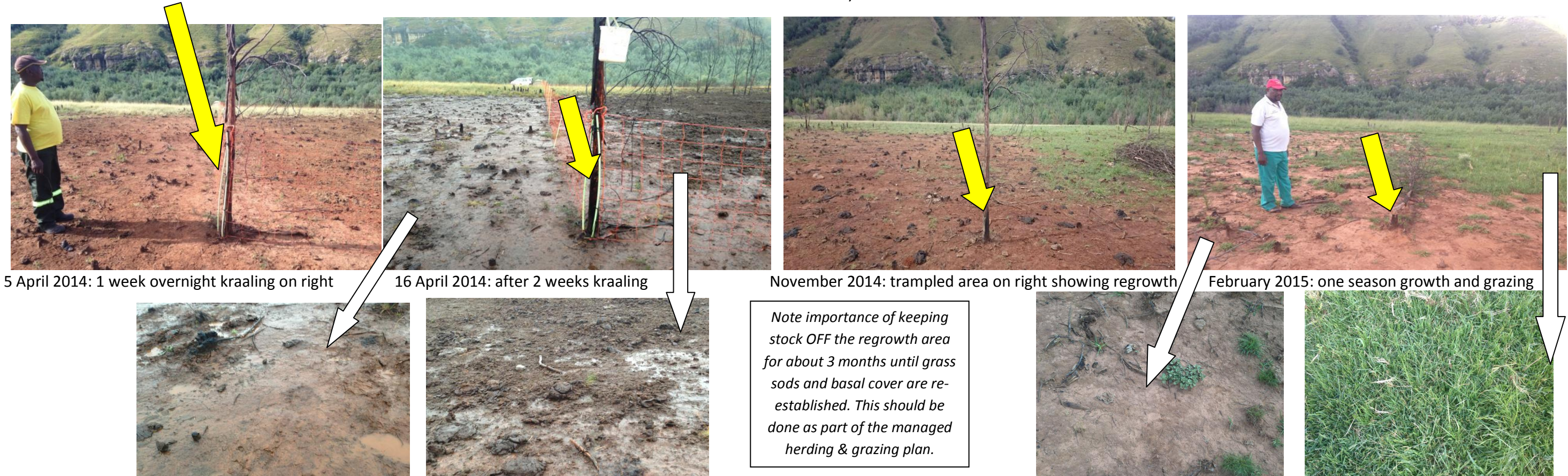


USING CATTLE AS BIOTURBATION ‘TOOLS’ FOR RESTORATION OF AREAS AFTER ALIEN PLANT CLEARING - ANNEXURE 4

CATTLE ARE STOCKPOSTED OVERNIGHT IN AGREED COMMUNAL GRAZING AREAS / CAMPS (USING HERDERS, NOT FENCES), WITH MOBILE OVERNIGHT KRAAL PLACED ON AREAS CLEARED OF WATTLE. HOOF TRAMPLING (a form of “bioturbation”) ASSISTS WITH ‘KICK STARTING’ RECOVERY OF GRASSLAND ON THESE CLEARED AREAS, THROUGH BREAKING UP CAPPED IMPERMEABLE SOIL SURFACE, AND DEPOSITING NUTRIENTS AND GRASS SEED IN MANURE. TEST SITE AT MOTSENG WAS CLEARED OF WATTLE, FOLLOWED BY UNPLANNED BURN WHICH DAMAGED SOIL.

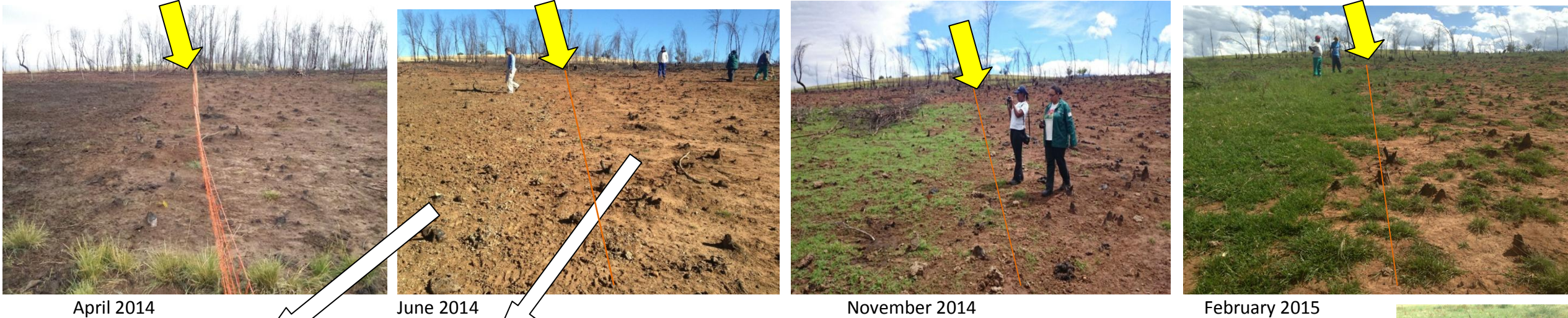
NOTE POLE AS FIXED POINT IN PHOTOS OF TEST SITE AT MOTSENG VILLAGE: KRAAL WAS PLACED TO RIGHT/EAST OF THIS POLE. HERD OF 190 CATTLE WAS KRAALED NIGHTLY HERE FOR 2.5 WEEKS.



Note rainfall infiltration difference between untrampled capped soil surface (above left) and trampled surface (above right).

Note difference in vegetation recovery in trampled area on right

VIEW LOOKING UP TOWARDS POLE ALONG WESTERN EDGE OF KRAAL SITE (trample zone now to left of picture). NOTE DIFFERENCE IN SOIL SURFACE TEXTURE, and PERMEABILITY FOR EFFECTIVE RAINFALL INFILTRATION



April 2014

June 2014

November 2014

February 2015



REGROWTH OBSERVATIONS ON MOTSENG TRAMPLE TEST SITE (3m x 3m patch)				
	IN JUNE 2014.		FEBRUARY 2015	
TYPE OF PLANTS	INSIDE / TRAMPLED	OUTSIDE / UNTRAMPLED	INSIDE / TRAMPLED	OUTSIDE / UNTRAMPLED
Grasses & forbs	100	22	230+	20
Wattle seedling	1	13	1	16
% basal cover	8%	3%	95%	15%

Basal cover inside trample site (left) and outside (right), showing wattle re-coppice from roots and seed

