

Castor transformation with the developed constructs

Castor transformation was attempted with >1.5 lakh explants. More than 50 putative transgenic shoots of castor were obtained with ihpRA vector targeting either the A chain part or the B chain part of ricin and RCA transcripts using the meristem based transformation protocol developed at DOR. These putative transgenic shoots were subjected to rooting and rooted shoots were acclimatized. Eight putative transformants were transferred to soil. The acclimatized plants were analyzed for the presence of gene cassettes using PCR. The seeds of these plants were collected and the next generation was raised. Around 25 T₁ plants from each of the eight T₀ castor plants with ihp-RicinA and ihp-RicinB constructs were analysed using PCR but none showed the presence of the cassette. When these were subjected to PCR analysis, none of the plants were positive that there was no stable inheritance of the gene cassettes.



Putative transgenic castor plants carrying ihpRA gene cassette acclimatized and surviving in the transgenic greenhouse