RB					LB
	2sgRNAs 🗖	2x35sp	hCpf1	NosT	Bar
	2sgRNAs	CMVe+CMVp	hCpf1	NosT	Bar
	2sgRNAs	AtUbip	hCpf1	NosT	Bar
	2sgRNAs	CMVe+AtUbip	hCpf1	NosT	Bar
	2sgRNAs	CMVe+GmUbip	hCpf1	NosT	Bar 💳
"	AtU3b	gRNA1 Poly T	OsU3	gRNA2	Poly T

Figure 1. Six constructs for Cpf1-mediated gene editing. The box highlights the different promoters that are being used to drive expression of Cpf1.

2x35s/AtEC	APOBEC	nCas9(D10A)	UGI	UGI	P2A	GFP	NosT	
2x35s/AtEC	APOBEC	nCas9(D10A)	UGI	UGI	NosT	GmL	Jbi GFF	NosT
2x35s/AtEC	TadA-TadA	N* nCas9(D10A) P2/	A GI	FP No	sT		
2x35s/AtEC	TadA-TadA	N* nCas9(D10A) No	sT	GmUbi	GFP	NosT	

Figure 2. The Cas9-Base Editor constructs. Expression of these Cas9-Base Editor constructs will be driven by 2x35s promoter for testing in hairy roots, and AtEC for making stable transgenic soybean. The APOBEC constructs are expected to cause C to T mutations and are called C Base Editors (CBE). The TadA-TadA* constructs are expected to cause A to G mutations and are called A Base Editors (ABE).