








Supplemental figure 3. Quantitation of GFP-SpoIIQ and MalF-GFP in various *spo* backgrounds. Scoring of sporangia with GFP-SpoIIQ or MalF-GFP at t_3 . GFP is shown in black with cell outlines in grey. GFP localization and membrane morphology are as follows: **(A)** GFP lining flat, polar septa; **(B)** GFP tracking with engulfing membrane (* refers to MalF-GFP localization enriched at the septum, but also diffused to the pole); **(C)** rings of GFP just prior to membrane fusion (in mutants lacking SpoIIP, M or D, no engulfing membranes exist and MalF-GFP is freely diffusible and appear as rings) (in strains containing a *spoIIGB* mutation, no σ^E is made and cells become disporic); **(D)** GFP localized to membrane as well as punctate in cells just prior to membrane fusion; **(E)** bulge mutants with GFP trapped in the septum; **(F)** bulge mutants with GFP freely diffusible throughout the forespore membrane and **(G)** collapsed forespores with GFP trapped inside. Numbers refer to the percentage of sporangia in each class depicted above. Bolded numbers refer to the predominant class of sporangia.

Strain background:		wild type		<i>spoIIP</i>		<i>spoIID</i>		<i>spoIIM</i>		<i>spoIIGB</i>		
GFP fusion to:		SpoIIQ	MalF	SpoIIQ	MalF	SpoIIQ	MalF	SpoIIQ	MalF	SpoIIQ	MalF	
GFP localization and membrane morphology	A		23	28	27	4	31	3	10	8	3	2
	B		8	*16	4		11		11			
	C		8	56		23		34		10	71	61
	D		52									
	E				69		58		79			
	F					72		63		83		
	G										26	37
Total sporangia scored		126	194	320	370	112	189	177	176	355	397	