

(2a) BXW management: cultural practices	
Countries	14 African countries where BXW is either already present or will very likely spread in the near future if no major intervention occurs.
Cultivar groups considered	6 (all cultivar groups used for priority assessment)
Current and likely future spread	The estimation of the current and likely future spread of the disease was made separately for each cultivar group and country . A faster spread and thus higher percentage values for future affected area were assumed for the ABB cultivar group.
Benefits:	
- Increase in yield	90%
- Reduction in postharvest losses	No effect
Production costs	20% increase mainly due to higher costs associated with purchase of clean seed but simultaneous lower costs for labour.
Adoption ceiling	30-70% of the (future) area affected by BXW given the high yield losses caused by the disease. 7-60% of the total national production area
Research period	7 years
Technology release	The technology release will start in 3 years in all included countries
Time from first adoption until estimated adoption ceiling will be reached	7 years for all countries but Burundi and DRC, where adoption will be a bit slower (8 years from first to maximum adoption).
Probability of success (up-take of technology)	80% for all countries, with the exception of CAR and South Sudan, where additional challenges at the national level are expected. Given the high level of damage resulting from the disease and the low level of complexity of the new technology, the probability of success is high.
R&D costs	\$35.4 million
Additional country-level costs	\$35.4 million (matched 1:1 with R&D costs)
Resource persons	Guy Blomme, Eldad Karamura, Charles Staver

(2a) BXW Management - cultural practices

Country	Production Area ('000 ha)	Area Threatened by/ Susceptible to BXW (% of total)	Current Spread of BXW (% of potentially threatened area)	Spread of BXW in 25 years without Major Intervention (% of threatened area)	Adoption Ceiling (% of area affected in 25 years)
Angola	36.76	100.00	0.00	20.78	40
Burundi	371.05	100.00	32.16	52.16	55
Cameroon	184.41	100.00	0.00	22.41	40
CAR	49.17	100.00	0.00	100.00	30
DRC	391.62	100.00	21.45	100.00	50
Ethiopia	22.89	100.00	10.06	20.06	60
Kenya	80.49	100.00	7.48	12.48	60
Malawi	26.99	100.00	0.00	100.00	60
Mozambique	27.86	100.00	0.00	50.54	40
Rwanda	343.64	100.00	61.89	61.89	70
South Sudan	7.11	100.00	0.00	100.00	30
Tanzania	537.68	100.00	11.86	21.86	50
Uganda	1,763.98	100.00	62.06	67.06	60
Zambia	0.23	100.00	0.00	100.00	50

Source: Production information from FruiTrop (2010); threatened and affected area and adoption ceiling are estimates from resource persons; current and estimated future spread of constraint displayed in table above is weighted average of estimates by cultivar group.

(2a) BXW Management - cultural practices (continued)

Country	Adoption Ceiling (% of total area) (At_{max})	Years to First Adoption (t_0)	Years to At_{max}	Yield Increase (%)	Reduction in Postharvest Losses (%)	Change in Input Costs (%)	Probability of Success (%)
Angola	8	3	7	90	0	20	80
Burundi	29	3	8	90	0	20	80
Cameroon	9	3	7	90	0	20	80
CAR	30	3	7	90	0	20	50
DRC	50	3	8	90	0	20	80
Ethiopia	12	3	7	90	0	20	80
Kenya	7	3	7	90	0	20	80
Malawi	60	3	7	90	0	20	80
Mozambique	20	3	7	90	0	20	80
Rwanda	43	3	7	90	0	20	80
South Sudan	30	3	7	90	0	20	50
Tanzania	11	3	7	90	0	20	80
Uganda	40	3	7	90	0	20	80
Zambia	50	3	7	90	0	20	80

Source: Expert estimates.