



Pest Risk Analysis (PRA)

Stage 2: Pest Risk Assessment





Overall Assessment of Risk





Stages

- Stage 1: Initiation
- **Stage 2: Pest Risk Assessment**
 - Step 1: Pest Categorization
 - Step 2: Assessment of the Probability of Introduction and Spread
 - Step 3: Impacts
 - **Step 4: Overall Assessment of Risk**
 - Step 5: Uncertainty
- Stage 3: Pest Risk Management





Overall assessment of risk

- **Risk = Likelihood X Consequence**
- Thus the overall assessment of risk combines the likelihood of pest introduction with the consequences of that introduction





Overall assessment of risk

Qualitative descriptions

Can be done

1. Based on free text describing how the probabilities and impacts have been considered or
2. Using qualitative word scales





Overall assessment of risk

- Combines the likelihood of pest introduction with the consequences of that introduction
 - “Without any mitigation measures, the pest is likely to be present on (host) from (origin) and to be able to survive transport and reach suitable hosts such as which are widely distributed in the PRA area”





Overall assessment of risk

- Combines the likelihood of pest introduction with the consequences of that introduction
- “Without any mitigation measures, the pest is likely to be present on (host) from (origin) and to be able to survive transport and reach suitable hosts such as which are widely distributed in the PRA area and could cause yield losses of up to 15% during a severe outbreak”





Overall assessment of risk

- “Although the pest can spread (be introduced – enter and establish) from neighbouring country impacts are likely to be very low”
- Improvement





Overall assessment of risk

- “Although the pest can spread (be introduced – enter and establish) from neighbouring country impacts are likely to be very low”
- Improvement
- “Although the pest is very likely to spread (be introduced – enter and establish) from neighbouring country impacts are likely be very low”





Summarising aspects of PRA

- Word scale
- Likelihood (Probability)
 - Very unlikely (Negligible)
 - Unlikely (Low)
 - Likely (Medium)
 - Very likely (High)





Summarising aspects of PRA

- Word scale
- Impact
 - Negligible
 - Low
 - Medium
 - High





Word Scale : Descriptors

Probability	Descriptive definition
Negligible	The event will almost certainly not occur
Low	The event is unlikely to occur
Medium	There is some likelihood of the event occurring
High	The event is highly likely to occur





Combining Probabilities

Probability of Introduction



Consequence of Introduction



Entry potential



Establishment potential



Spread potential





Combining Probabilities

Risk matrix

Likelihood of Spread

High				
Medium				
Low				
Negligible				
	Negligible	Low	Medium	High

Likelihood of introduction





Summary

- Part of the pest risk assessment process
- Qualitative descriptions - free text
- Qualitative descriptions – word scales
- Summarising aspects of risk assessment
- Combining likelihood and impact
 - Summarising the summary!

