



Fruit Flies In-silico
Prevention & Management

FF-IPM

In-silico boosted pest prevention
off-season focused IPM

against new + emerging fruit flies

TRAINING MATERIAL



Horizon 2020
European Union Funding
for Research & Innovation





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ENTITY

Biosecurity & population modeling





FF•IPM Fruit Flies In-silico
Prevention & Management
TRAINING MATERIAL

BIOSECURITY & POLULATION MODELLING

Dispersal potential



Horizon 2020
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MODULE 11



Key Aspects

TITLE OF MODULE

Unit 1 what is performance and dispersal? / KEY ASPECT 1 why do we care about dispersal?

Discussion Question #1

What do we mean by performance and dispersal? Why does it matter?

Unit 2 Factors influencing dispersal / KEY ASPECT 2 extrinsic and intrinsic dispersal factors

Discussion Question #2

Insects and Tephritidae respond to diverse extrinsic and intrinsic factors when making dispersal decisions and affect locomotion performance.

Temperatures (and other environmental conditions) are permissive of flight ability and locomotion performance

There are a range of internal and external factors influencing fly dispersal ability.



Key Aspects

TITLE OF MODULE

Unit 3 Performance curves and dispersal ability / KEY ASPECT 3 ways to infer dispersal ability

Discussion Question #3

Performance curves are useful proxies of locomotion and dispersal and can explain flight patterns to some extent.

- Direct and indirect dispersal have likely different factors affecting them.
- Morphological correlates and biomarkers of dispersal ability.



Learning outcomes

TITLE OF MODULE

1. Gain insight into why fly performance and dispersal ability matters
2. Understanding of major extrinsic and intrinsic factors potentially influencing fruit fly dispersal
3. Insights into how dispersal is measured under lab and field conditions (methodology)
4. Knowledge of how climate might affect fruit fly dispersal and performance
5. Information on dispersal variation among Tephritidae species