

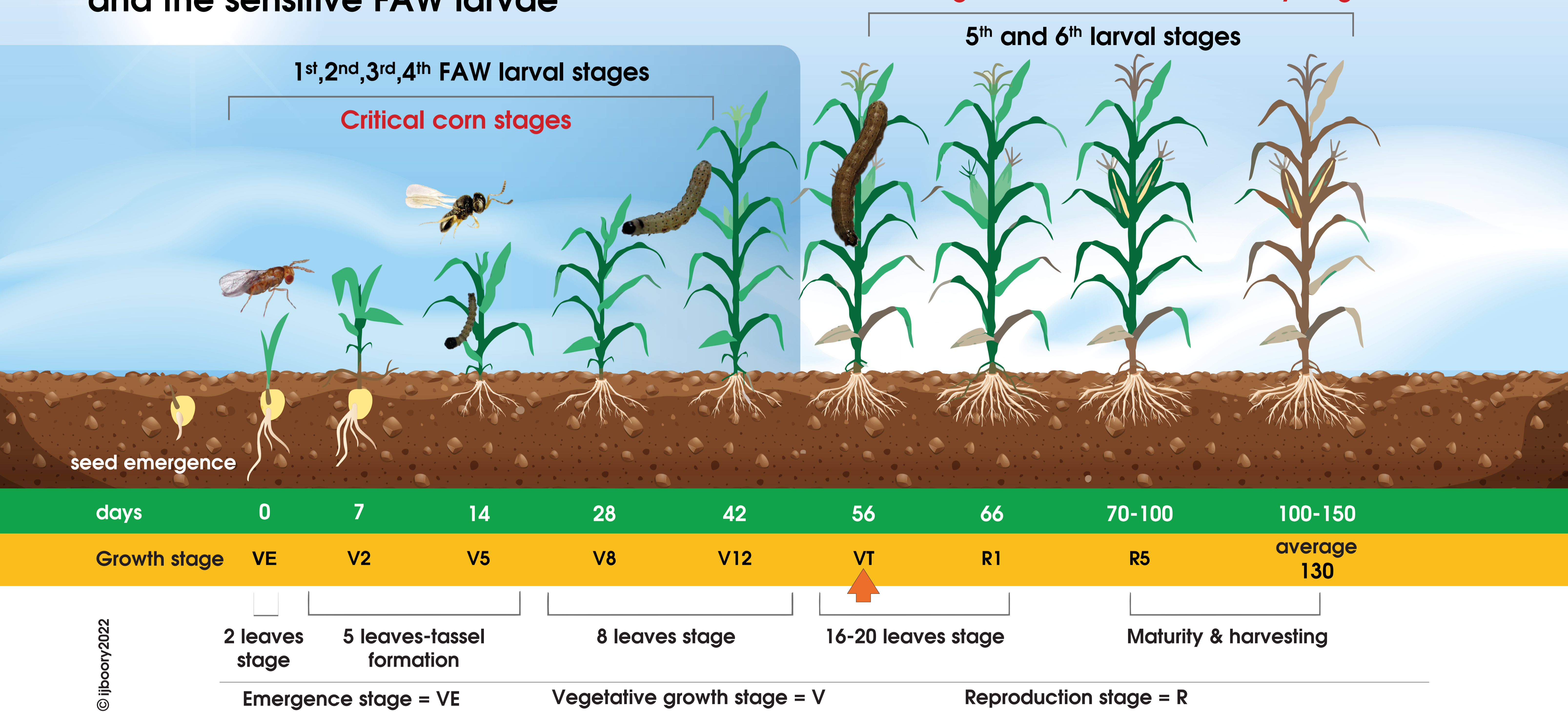
Regional Workshop on Fall Armyworm (FAW) Management in the Near East and North Africa Region

Cairo, Egypt 3-4 October, 2022



Corn critical growth stages, and the sensitive FAW larvae

Avoid using insecticides in the maturity stages



IPM steps for Fall armyworm management

- Know your pest**
 - Moth flight capacity around 100 km/night
 - Lay between 1000-1500 eggs in batches of 100-200 eggs
 - Lay eggs on the back leaf surfaces and soft stems
 - 6 larval instars, the first 3 instars cause the damage
 - Pupation either on cob or in the soil
 - Life cycle around 30 days in summer
 - The male identified by 2 spots on the front wing
- Know your beneficials**
 - Natural Enemies of egg and larval parasitoids, parasites, entomopathogenic microbials and nematodes are the main factor in FAW Biocontrol
 - Egg parasitoids reduce FAW population to around 80%; GAP and another bioagents complete the control action
 - Trichogramma, Telenomus and Chelonus are the main bioagents in corn fields
 - Bracon, lacewing, bugs, ants are predators suppressing the FAW numbers
- Scout your crop**
 - Regularly inspect your crops and fields
 - Examine the captured males in the pheromone traps
 - Corn crop growth period between 90-120 days
 - Most susceptible stages are the first 3 larval instars
 - Limit the use of nitrogen fertilizers to avoid the increase in insect fertility
 - Grow legumes within the corn fields as a FAW repellent
 - Adopt push pull cropping system if possible
- Economic threshold level**
 - Count the number of males in the pheromone trap and consider the 3 males are action threshold
 - Check the plant damage percent to decide when is the action threshold
 - leaf damage of 20-30% at early cropping growth is an action threshold
 - Use FAMEWS for insect monitoring
 - Consult the extension services if you need help
- Use suitable product & dosage**
 - Don't overuse insecticides
 - Don't use high risk insecticides
 - Stop insecticides spray in the crop maturity
 - Use Bacillus and Emamectin benzoate when the first larval instars appeared
 - Use IGR and plant extracts as alternatives
 - Apply only the recommended chemicals by MOA
- Resistance management strategy**
 - Don't use unknown insecticides
 - Don't reuse the same insecticides more than once
 - Alternate between pesticide groups to prevent resistance emergence
 - Don't use insecticides unless necessary
 - Spot application could help reducing resistance

IPM is a sustainable approach for managing pests PAMS = prevention - avoidance - monitoring - suppression

Proposed control measures in the demonstration fields

- Apply Bt after 10-25 days, IGR lufenuron after 20-30days, apply Emamectin benzoate after 35-45 days
- Apply Bt after 10-25 days, mixture of Bt and indoxacarb after 20-30 days, Emamectin benzoate after 35-45 days
- Apply Bt after 10-25 days, mixture of Bt and IGR after 20-30 days and Emamectin benzoate after 35-45 days
- Apply Bacillus thuringiensis after 10-25 days of seed emergence, 20-30 days mixture of Bt and IGR, after 35-45 days either Azadirachtin or Alphacypermethrin

Notes

- Egg and larval parasitoids release in the first plant growth stages when infested;
- Applying the entomopathogenic fungus *Metarhizium anisopliae* in the seeding stage and 20 days after seed emergence;
- Apply the local Bt and fungi strains if available or the official registered strains;
- Use pheromone traps for monitoring; 3 captured males in the traps is an economic threshold for saving your crop

Emergency preparedness and response to strengthen capacities of NENA countries to mitigate the risk of Fall Armyworm (FAW) in the region TCP/RAB/3803