

Systems analysis

| Function & what does it involve? | Key people/group(s) involved | How do those involved connect with others about this function? | What tools are used to support this function? | What information sources support this function? | How is this function resourced? | What external rules apply to this function? (e.g. legislation, strategic plans, etc.) | What program rules apply to this function? |
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| Program management | Local Land Services Regional Plant Biosecurity Coordinators Plant Biosecurity Program Lead | Plant Coordinators connect monthly through a Community of Practice. Programs are coordinated through regional connections. | Online meetings Shared comms and deliverables | Existing working group structures | Business as usual | State Organisational Strategic Plan Regional Strategies Legislation | Regular communication between plant biosecurity staff Shared resources |
| Target pest: Fall Armyworm | DPIRD Entomologists Local Land Services expertise National Entomologists RapidAim Staff Private Agronomists | Knowledge sharing and updates distributed through: Advisory meetings Field Days Community of Practice | LLS RapidAIM Sensor Network Pheromone traps Private agronomists and crop scouts Chemical resistance screening | Extension information and resources Research and technological development Climatic tolerances and host species range | TBC | Not a notifiable pest in NSW APMVA chemical permits for different crops Best practice IPM and pesticide strategies to reduce pesticide resistance risks Fall armyworm biotype and novel traits may develop | Funding available for sensor maintenance Keep up-to-date with research, restrictions and developments |
| Target regions identified: NSW LLS Regions: North Coast Greater Sydney South East Hunter Central West | Local Land Services staff Rural reseller stores Dairy Australia Dairy NSW GRDC Plant Health Australia | Communication between groups is facilitated through: Stakeholder meetings Newsletters Seasonal updates Training events | Internet access Mobile reception | TBC | Business as usual | Potential environmental impacts to native species Action plans of existing industries | Primary industries affected by Fall Armyworm Could shift if pests become problematic in new regions and crops |
| Community engaged (notifiers) | Dairy Producers Grain Producers Silage growers Private Agronomists Regional grower groups | Communication is facilitated through: Extension updates Seasonal updates ID and management workshops Industry publications | Newsletters Industry publications Grower field days Websites | TBC | In-kind support | No reporting requirements in NSW Community values (reducing impacts of pest pressure on neighbouring enterprises, etc) | Accurate and current information Best Management Practice Keep up to date with impacts developing in other industries ie rice, cotton, sugarcane |
| Surveillance activities | Local Land Services Plant Biosecurity Staff Private/Corporate Agronomists & Crop Scouts | Regional connections through government and industry relationships | RapidAim sensor data collection and storage Agronomist logbooks | FAW 3D identification model Factsheets and Ute guides Beatsheet website Identification workshops | Business as usual | TBC | Correct identification Efficacy of pheromone lures |

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| | RapidAIM staff | | Contract sprayer logbooks | DARABUG2 - degree days for pest development | | | |
| Reporting | RapidAim data collection and storage Sensors and pheromone lures are maintained by dairy producers Agronomist/Crop Scouts TBD | RapidAIM customer service | Reporting apps require smart phones at the front end Integrated dashboard supported through RapidAIM website | Growers learn trap set up and app functions from RapidAIM + user's manual Use of notifications to determine field monitoring and spray schedules Climate applications team to use RapidAim outputs in their modelling/forecasting | Business as usual RapidAIM subscription | NSW Privacy and Personal Information Protection Act 1998 | Notifications from RapidAIM app Local Land Services subscription to RapidAIM sensors Use of data by Local Land Services for communications |
| Identification/ Diagnosis | LLS and DPIRD staff Private/Corporate agronomists Growers | Regional connections through government and industry relationships | | RapidAim to determine best pheromones lures specific to FAW Staff training | Cost of leasing and maintaining RapidAim traps | TBC | Correct identification Efficacy of pheromone lures |
| Data management and analysis | RapidAIM staff Plant Biosecurity Program Lead LLS Plant Biosecurity Coordinators DPI Climate Applications | TBC | RapidAIM/LLS database and storage capacity RapidAIM software and app development | Existing capabilities to store and analyse the data. Appropriate models by Climate Applications team. App development by RapidAim. | Business as usual | LLS Data Governance and Management RapidAim Terms and Conditions | TBC |
| Data use | Growers and producers Local Land Services Dairy Australia DPI Climate Applications Research scientists | Communications to farmers groups and grower associations. Knowledge sharing with other jurisdictions | RapidAIM sensor alerts app Seasonal updates developed by Local Land Services | TBC | Business as usual | RapidAim terms and conditions on product, sales and services. NSW Privacy and Personal Information Protection Act 1998 Data Sharing Act (2015) | Appropriate risk and liability communications |