



# 48th EPPO Panel on Efficacy Evaluation of Fungicides and Insecticides

26<sup>th</sup> to 28<sup>th</sup> of November 2019

**JKI**

**Braunschweig**



Quedlinburg

# Julius Kühn Institute (JKI) – Federal Research Centre for Cultivated Plants



- Constituted on **January 1st, 2008**
- The main predecessor organization was founded in **1898** as *Imperial Biological Research Centre for Agriculture and Forestry* in Berlin
- Independant higher **federal authority** and **research institute** with tasks assigned by law (Plant Protection Act, Genetic Engineering Act, Chemicals Act and corresponding legal regulations)
- Sub-ordinated to the German Federal Ministry of Food and Agriculture (BMEL)



# Organization

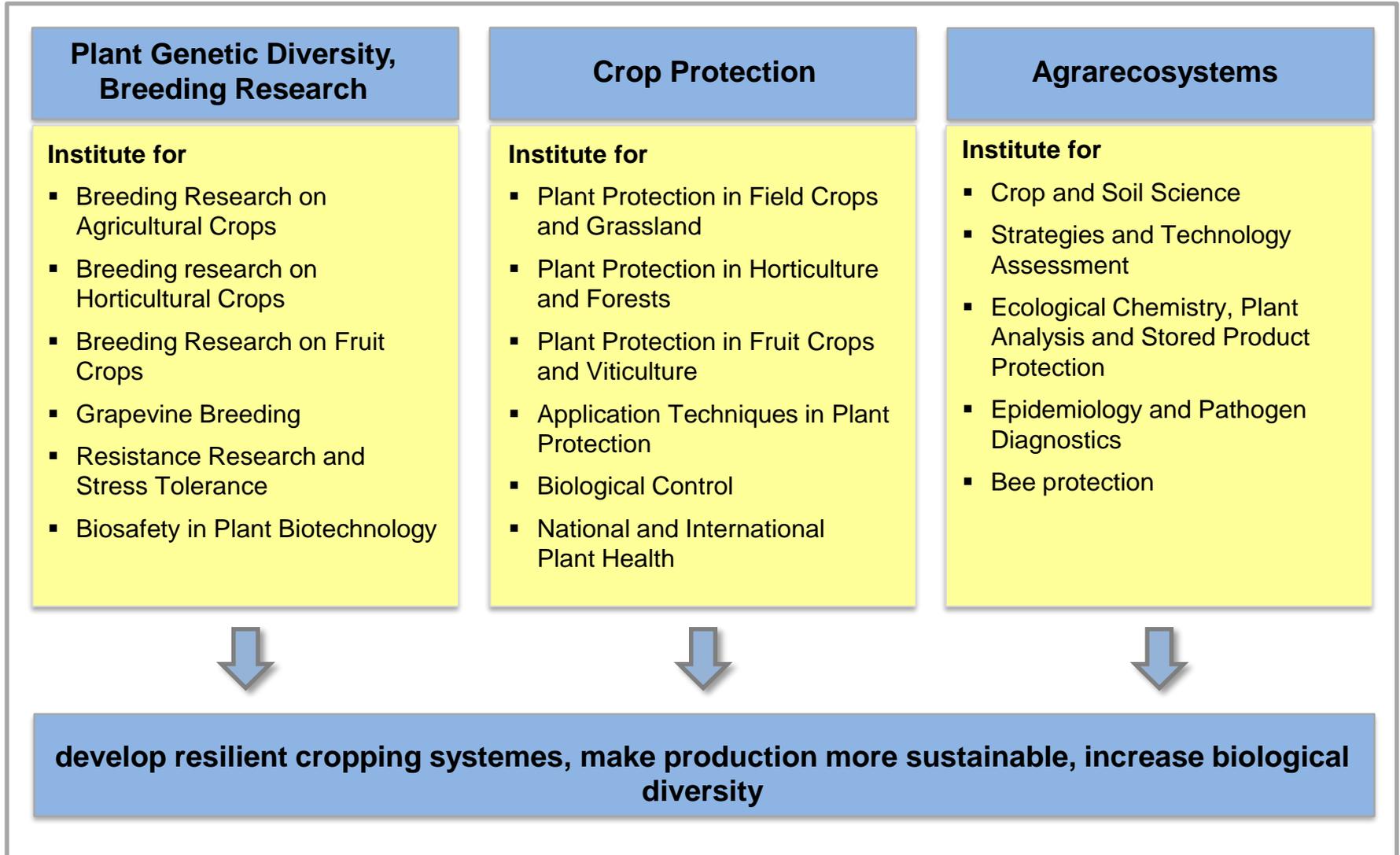


- 17 specialized institutes at 10 locations
- **Headquarter: Quedlinburg**



Quedlinburg





# Who was Julius Kühn?



- Julius Kühn lived from 1825 till 1910.
- He established and developed the agrarian sciences as part of university education in Germany in the 19th century.
- He is one of the most prominent founders of modern phytomedicine.
- In 1863 he was given the permission to establish the first independent research institute in agricultural sciences in Germany at the University of Halle.
- Under his leadership during the next 40 years, this institution evolved into the most eminent educational and research institution of agrarian sciences in Germany at that time.
- He published about 300 articles mainly about plant protection.



# Facilities

- about 20.000 m<sup>2</sup> laboratory space
- about 35.500 m<sup>2</sup> greenhouse space
- about 600 ha experimental fields



# Staff (January 2019)



|  |             |
|--|-------------|
| <b>Permanent positions (federal budget)</b>      | <b>774</b>  |
| permanent positions for scientists               | 205         |
| <b>Total staff (including third-party funds)</b> | <b>1176</b> |
| thereof scientists                               | 378         |

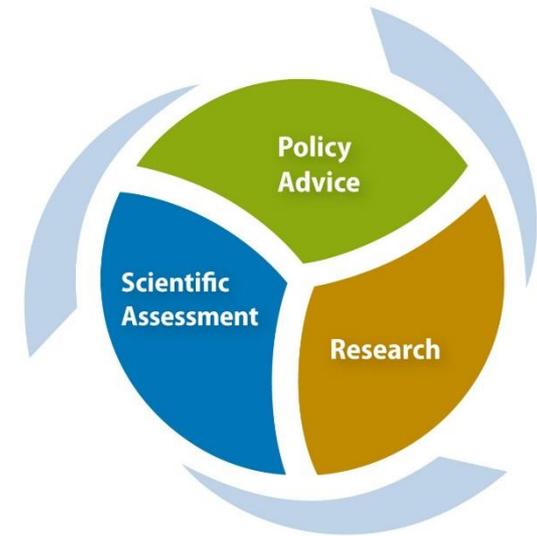


# Responsibilities

## I. Policy Advice

- providing information and advice to the Federal Ministry of Food and Agriculture and the Federal Government

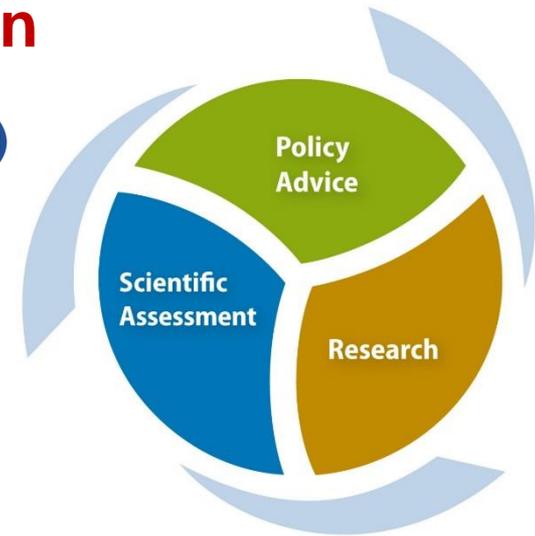
- Ad hoc expertise
- Support in sectoral regulations
- National strategies and action plans



# Responsibilities

## II. Scientific Assessment and Evaluation

- Pesticides (efficacy of plant protection products)
- Effects of plant protection products on bees, bee protection
- Plant protection products against pests of stored products
- Biocides
- Plant protection equipment and machinery
- Risk analyses for quarantine pests (in particular for export issues)
- Resistance and tolerance of plants and varieties to harmful organisms
- GM plants, new plant breeding technologies



# Scientific assessment

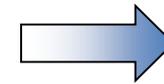
in the framework of

- the authorization of plant protection products
- the approval procedure of active substances



## Risk Management

Federal Office of Consumer Protection and Food Safety (BVL)



Authorization

Federal Environment Agency (UBA)

Julius Kühn-Institut (JKI)

- Efficacy
- Honey bee

Federal Institute for risk assessment (BfR)

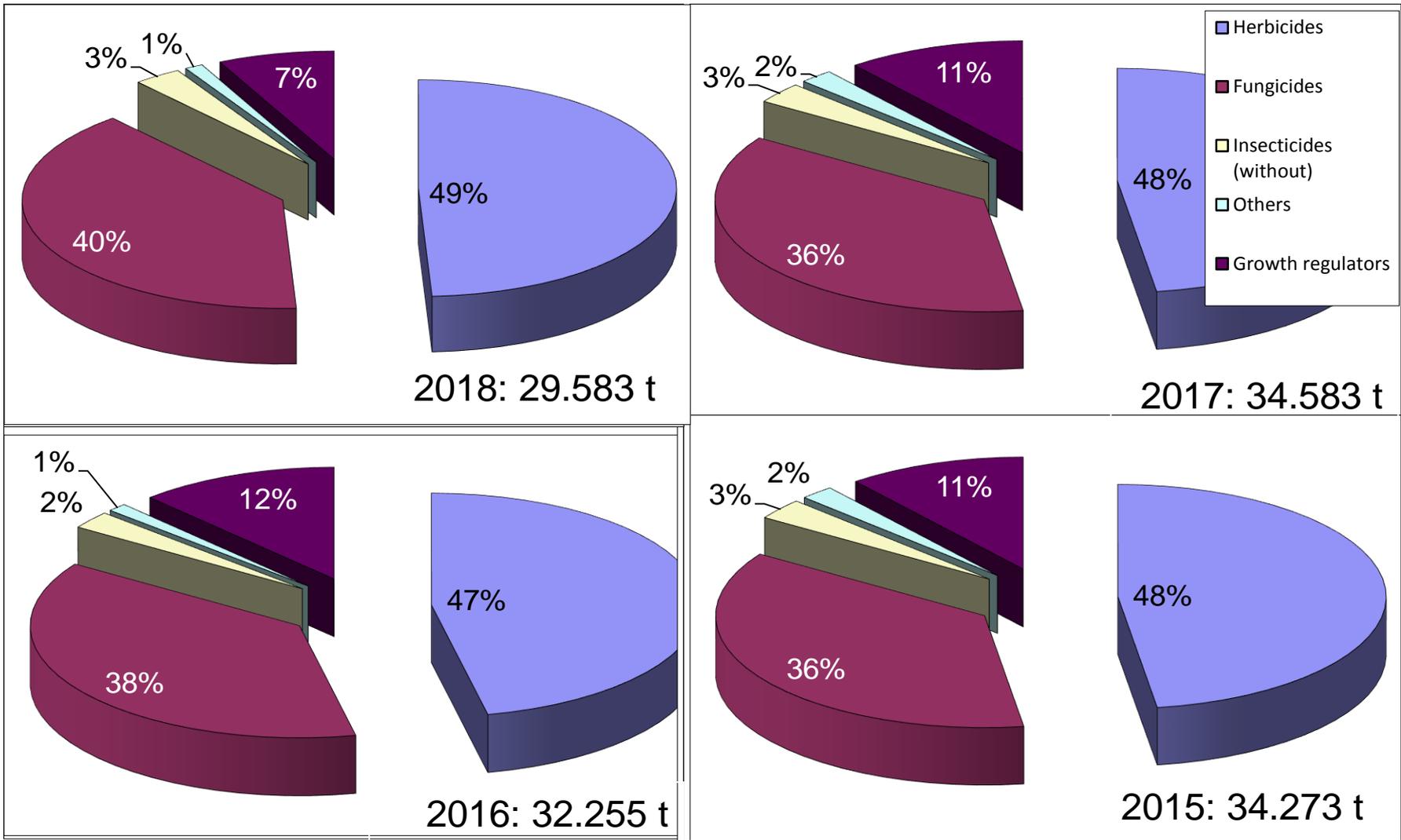
## Risk Assessment

# Agricultural area in Germany and growing area of major crops in 2018 (Statistisches Bundesamt)

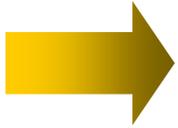


|                       | in 1,000 ha | in % |
|-----------------------|-------------|------|
| Agricultural area     | 16,635.8    |      |
| Grassland (permanent) | 4,708.0     |      |
| Arable land           | 11,727.4    | 100  |
| Cereals               | 6,185.0     | 53   |
| Wheat                 | 3,035.1     |      |
| Barley                | 1,666.1     |      |
| Maize                 | 2,608.0     | 22   |
| - Maize for silage    | 2,165.6     |      |
| - Grain maize         | 442.4       |      |
| Oilseed rape          | 1,221.5     | 10   |
| Sugar beet            | 413.3       | 4    |
| Potatoes              | 250.2       | 2    |
| Grain Legumes         | 191.4       | 2    |
| Set aside             | 357.1       | 3    |

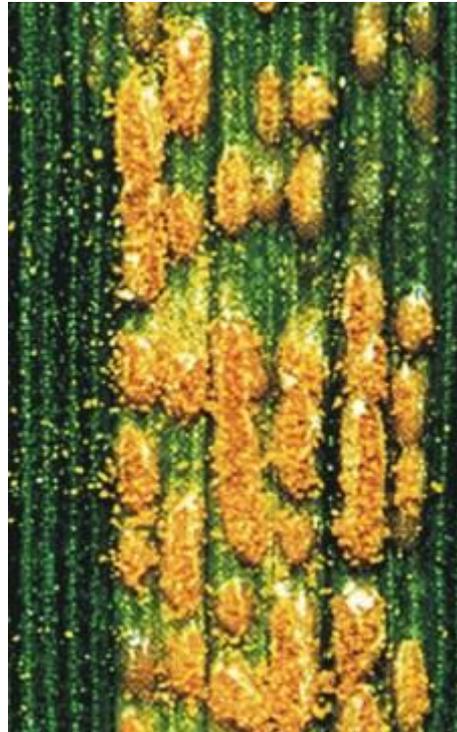
# Domestic sales of pesticide active substances (BVL 2019)



Resistance and tolerance testing of plants and varieties to harmful organisms



(§ 57 Abs. 2 Nr. 10 PflSchG; in cooperation with the Federal Plant Variety Office (Bundessortenamt))





# Resistance assessment of oilseed rape to plant pathogens



*Leptosphaeria maculans*



*Plasmodiophora  
brassicae*



*Sclerotinia sclerotiorum*



*Verticillium longisporum*

# Responsibilities

## III. Research

in all major fields of competence:

- **Plant genetics, breeding research, breeding**
- **Sustainable plant cultivation, plant nutrition, soil science**
- **Plant protection, plant health, bee protection**

as basis for

- **scientific competence of JKI**
- **policy advice**
- **scientific assessment and evaluation**
- **prospective research**
- **networking within the scientific community**
- **national and international cooperation**

