Herbicide resistance tests in 2017, Latvia and Lithuania

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Agenda

- **Resistance analyses of:**
  - ✓**APESV LVA, LTU**
  - ✓**STEME LVA**
  - ✓**CENCY LVA, LTU**
  - ✓**CHEAL LTU**

APESV Samples for resistance tests 2017, LVA, LTU

Plants
APESV_LVA1
APESV_LVA2
STEME_LVA1
CHEAL_LTU1
CHEAL_LTU2
CHEAL_LTU3
CHEAL_LTU4

Seeds
APESV_LTU1
APESV_LTU2
CENCY_LVA1
CENCY_LTU1
STEME_LVA1

Conclusion

- APESV
  - TSR& EMR to ALS, ACCase herbicides, LVA ; resistance to ALS herbicides, LTU;
- STEME
  - TSR to ALS herbicides, LVA;
- CHEAL
  - TSR to ALS herbicides, LTU
  - No resistance after Conviso One, LTU
- CENCY
  - **2017: Reported case for CENCY resistance to ALS herbicides, LVA, LTU**

CONCLUSION

- Herbicide resistance increase promoted by monocrop in the field, large seed bank, late application;

- Both test types (bioassay & DNA analyses) give better explanation for resistance development

SUGGESTIONS

- Individual advises for each farmer;
- Monitoring of the fields where the resistance was reported;
- Implementation of IWM : crop rotation, soil ploughing, weed control with different MoA;
- Main APESV, STEME, CENCY control in winter cereals - autumn application with non ALS herbicides, include spring crops in the rotation;
- Application of herbicides should be at the appropriate time for satisfactory weed control;
- For anti-resistance strategy in ALS resistant sugar beet it is recommended to use different MoA herbicide partner (PMP, DMP, ETO and etc.)

Thank you!