## Breeding and seeds

1. **Loel, J., C. Hoffmann**
   - Evaluation of the breeding progress of sugar beet varieties from 1964 to 2003

2. **Henry-Bounan, K., B. Mangin, F. Sandron, B. Devaux, V. Laurent, P. Devaux**
   - Genetic diversity among cultivated and wild species accessions of sugar beet (*Beta vulgaris* L.) based on SNP and DA'T markers: molecular and ecogeographical analyses and linkage map building

3. **Eujayl, I., C. Strausbaugh**
   - Whole genome sequencing of sugar beet and SNP development

4. **Barnes, S., K. Koh, A. Sharpe, S. Vanstraalen, G. Willems**
   - Relationship between physical and genetic distances in sugar beet chromosomes

5. **Adetunji, I., G. Willems, H. Tschoep, A. Burkholz, S. Barnes, M. Boer, M. Malosetti, S. Horemans, F. van Eeuwijk**
   - Genetic diversity and linkage disequilibrium analysis in elite sugar beet breeding lines and wild beet accessions

6. **Miller, J., M. Rekoske, E. Lindroos**
   - Impact of American germplasm for resistance breeding in sugar beet

7. **Stevanato, P., L. Sella, C. de Lucchi, C. Broccanello, L. Hanson, L. Panella, M. McGrath**
   - Improving key root traits in sugar beet: *Fusarium* tolerance

8. **Tossens, A., N. Debontridder**
   - FT-NIRS for the quantification of pesticides on coated sugar beet seeds

9. **Pedersen, H.C.**
   - Field Vision Technology for evaluation of product quality

## Agronomy

1. **Koch, H.-J., H. Eigner**
   - Recent activities and future topics of the IIRB Plant & Soil study group

2. **Schlinker, G., A. Windt**
   - Equal distance drilling of sugar beets

   - Computer vision guided chemical thinning

   - Soil water content, disease, weed, and insect responses in strip-till sugar beet

5. **Laufer, D., G. Sander, G. Schlinker, H.-J. Koch**
   - Autumn strip tillage in sugar beet cultivation – first experiences on loess soils in Northern Germany

6. **Nübel, V., B. Loibl, K. Bürcky**
   - Investigation on strip-till growing of sugar beet in Southern Germany

7. **Muirinen, S., H. Louramo, M. Turakainen**
   - Different cover materials on sugar beet growing

8. **Zavanella, M., A. Vacchi, A. Fabbri, G. Bettini**
   - Experimental quantification of machine trampling damage in sugar beet cultivation in Italy

9. **Khan, M.**
   - Effect of simulated hail on yield of sugar beet

10. **Becker, C., H.-J. Koch**
    - Utilization of deteriorated beets as top-dressed manure in winter wheat

11. **Aylaj, M., El Kbir Lhadi**
    - Impact of the salinity of water on the chlorophyll contents of two varieties of sugar beet

12. **Sigl, G., T. Assinger, H. Eigner, P. Liebhard**
    - Characterisation of different species for their suitability as intercrop before sugar beet

13. **Sigl, G., T. Assinger, H. Eigner, P. Liebhard**
    - Impact of different intercrop species on yield and quality of sugar beet
## 3 Plant nutrition

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A balanced uptake of nitrogen by sugar beet during the growing season as a prerequisite of high yield of sugar</td>
<td>Grzebisz, W., P. Barłóg, W. Szczepaniak</td>
</tr>
<tr>
<td>Interaction between some varieties and the mineral nitrogen availability</td>
<td>Legrand, G., A. Wauters</td>
</tr>
<tr>
<td>N₂O-emissions resulting from N-fertiliser application in sugar beet cultivation</td>
<td>Trimpler, K., N. Stockfisch</td>
</tr>
<tr>
<td>Liming as a method for integrated control of Aphanomyces in sugar beet</td>
<td>Persson, L., Å. Olsson</td>
</tr>
<tr>
<td>Liming of different soil types – effect on soil factors and sugar yield</td>
<td>Olsson, Å., L. Persson</td>
</tr>
<tr>
<td>Effect of precipitated calcium carbonate on soil characteristics and sugar beet yield and quality</td>
<td>Hergert, G.W., M.K. Darapuneni, R. Wilson, R. Harveson, J. Bradshaw, R. Nielsen</td>
</tr>
<tr>
<td>Liming increases EUF extractable, labile, and plant available P on loess soils</td>
<td>Lemme, H., D. Horn, H.-J. Koch</td>
</tr>
<tr>
<td>Is the P and K supply in soils enough for optimum sugar yield?</td>
<td>Fürstenfeld, F., D. Horn</td>
</tr>
<tr>
<td>Yield response in Finnish sugar beet trials with starter application of phosphorus</td>
<td>Muurinen, S., M. Turakainen</td>
</tr>
<tr>
<td>Potassium replacement by sodium in different sugar beet fertilising systems</td>
<td>Szczepaniak, W., W. Grzebisz, A. Kozera</td>
</tr>
<tr>
<td>Effect of sodium application on nutritional status of sugar beet plants at critical stages of growth</td>
<td>Barłóg, P., W. Grzebisz</td>
</tr>
</tbody>
</table>

## 4 Control of pests, diseases and weeds

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation of inoculum of <em>Rhizoctonia solani</em> Kühn for an artificially inoculated field trial</td>
<td>Vagher, T., A. L. Fenwick, L. Panella</td>
</tr>
<tr>
<td>Molecular assay for rapid quantification of <em>Rhizoctonia solani</em> AG2-2IIIB</td>
<td>Renner, A.-C., B. Boine, R. Apfelbeck, M. Zellner</td>
</tr>
<tr>
<td>Effect of different sugar beet pre-crops and agricultural practices on soil inoculum densities of <em>Rhizoctonia solani</em></td>
<td>Renner, A.-C., B. Boine, G. Wagner, G. Simeth, M. Zellner</td>
</tr>
<tr>
<td>Soil structure effects on <em>Rhizoctonia</em> infestation of sugar beet (<em>Beta vulgaris</em>) – concept and first results</td>
<td>Schulze, S., H.-J. Koch</td>
</tr>
<tr>
<td>Management of <em>Rhizoctonia solani</em> by specific intercrop cultivation and biological control agents</td>
<td>Kreitzer, C., H. Eigner</td>
</tr>
<tr>
<td>Reduce the pressure of brown rhizoctonia attacks in the crop rotation involving corn, sugar beet and potatoes</td>
<td>Champpeil, A., K. Bouchek-Mechiche, C. Chatot, P. Dolo, V. Faloya, D. Gaucher, B. Mille, F. Montfort</td>
</tr>
<tr>
<td>Chemical control of the late root and crown rot in sugar beet caused by <em>Rhizoctonia solani</em></td>
<td>Bartholomäus, A., S. Mittler, M. Varrelmann</td>
</tr>
<tr>
<td>Analysing a late season root rot of sugar beet in the Imperial Valley of California</td>
<td>Bredenhoft, M.W., V. Rivera, G. Secor</td>
</tr>
<tr>
<td>Development of two biotests for the identification of <em>Aphanomyces cochlioides</em> resistance in sugar beet</td>
<td>Christ, D., M. Varrelmann</td>
</tr>
<tr>
<td>Current status of DMI and QoI fungicide resistance in European Union populations of <em>Cercospora beticola</em></td>
<td>Secor, G., V. Rivera, M. Bolton, M. Khan</td>
</tr>
</tbody>
</table>
Early leaf disease control and detection of *Ramularia beticola* in sugar beets using spore traps and qPCR

4.13 Persson, L., Å. Olsson
Occurrence of Verticillium wilt in sugar beet in Sweden

4.14 De Bruyne, E., G. Willems, L. Broos, J. Hermes
Genetic diversity of the BNYVV virus by whole genome sequencing – some new insights

4.15 Kimmel, J., L. Potyondi, F. Csima, E. Takacs
The effect of climate change on sugar beet pests and diseases in Hungary

4.16 Horn, D., T. Hetterich, F. Fürstenfeld
Experience of the determination of *Heterodera schachtii* in soils and implementation into farming practice

4.17 Meinecke, A., K. Ziegler, K. Bürcky, A. Westphal
Importance of weeds on stubble fields for population densities of *Heterodera schachtii*

4.18 Olsson, Å., S. Andersson, A. L. Hansen
Survey of free living nematodes in sugar beet fields in Sweden and Denmark 2012-2013

4.19 Zavanella, M., G. Campagna, M. Silvagni
Mapping the spread of sugar beet cyst nematodes in Northern Italy

4.20 Schlatter, C., C. Watrin, A. Oliveira
Developing an integrated approach to the control of beet cyst nematode in sugar beet

5.1 Champion, G., E. Burks, P. Turnbull
Herbicide combinations to optimise control of black-grass in sugar beet

5.2 Šulík, R.
Control of Clearfield sunflower in sugar beet

5.3 Wendt M.J., M. Wegener, E. Ladewig, B. Märländer
Methodology of testing efficacy and durability of an ALS-inhibitor herbicide on weed species in sugar beet cultivation

Environmental risk assessment of glyphosate tolerant H7-1 sugar beet

6.1 Blockaille, S.
PERFBETT – Improve performances and uses of harvest machinery

6.2 Rydén, A.
Harvest losses – potentials and actions to catch them

6.3 Büsching, S., C. Linnes, D. Wollenweber, C. Becker
Load loss through the use of different cleaner loaders – possibilities of reducing loss and enhancing cleaning quality – results of a two-year trial

6.4 Nowakowski, M., P. Skonieczek, A. Paradowski, K. Kubicki
Yield and processing quality of topped and defoliated sugar beets cultivated on lessive soil in Poland

6.5 Schnepel, K., C. Hoffmann
Formula to calculate the invert sugar content based on the glucose content of sugar beet

6.6 Schnepel, K., C. Hoffmann
Estimation of the storability of sugar beet genotypes

6.7 Liebe, S., M. Varrelmann
Effect of genotype and environment on the development of root rots during long-time storage of sugar beets

6.8 Eigner, H., G. Sigl
Investigations on the storability of sugar beet varieties
6.9 Hein, W., F. Emerstorfer  Evaluation of the refractometric formula for the prediction of the technological quality of stored sugar beets
6.10 Olsson, R.  Sugar losses and effect on beet quality after different clamp covering concepts in Sweden
6.11 Danojević, D., N. Nagl, Ž. Ćurčić, I. Maksimović, M. Putnik-Delić, K. Taški-Ajduković, J. Boćanski  Changes in proline content and leaf traits under water stress in sugar beet lines and hybrids

7  Sugar beet as energy crop
7.1 Potyondi, L., J. Kimmel, F. Csima, E. Takacs  Biogas and bio-energy production from sugar beet
7.2 Auburger, S., E. Bahrs  Potential availability of arable land for additional sugar beet cultivation as a biogas crop in Germany
7.3 Brauer-Siebrecht, W., A. Jacobs, H.-J. Koch  Balance and leaching of nitrogen in energy crop rotations with and without sugar beet
7.4 Götte, P., J. Rücknagel, A. Jacobs, O. Christen  Risk of soil compaction in energy crop rotations with and without sugar beet
7.5 Pelka, N., O. Musshoff  Competitiveness and economic risks of crop rotations with and without sugar beets with biogas as production target under consideration of the individual risk acceptance

8  Winter beet
8.1 Hoffmann, C.  Bioenergy from winter beet – a joint project along the value chain
8.2 Kopisch-Obuch, F.J., M. Kirchhoff, F. Uhlmann, N. Pfeiffer, J. Ogutu, E. Orsini, A. Schechert, C. Jung  QTL for winter hardiness and post winter bolting resistance in sugar beet (Beta vulgaris ssp. vulgaris L.)
8.3 Loel, J., C. Hoffmann  Factors affecting the winter hardiness of sugar beet
8.4 Reinsdorf, E.  Risk assessment for frost killing of winter sugar beet by modelling the beet crown temperature
8.5 Stephan, H., U. Böttcher, H. Kage  Simulations of potential yields for non-bolting winter beet
8.6 Ohl, S., E. Hartung  Methane yield of winter beet
8.7 Ohl, S., E. Hartung  Producing biogas from winter beet: Is it reasonable?
8.8 Stockfisch, N.  Resource efficiency of winter beet cultivation

9  Beet pulp
9.1 Potthast, C., S. Brinker, K. Maier  Assessment of the effects of chemical silage additives in pressed pulp silage
9.2 Brinker, S., C. Potthast, K. Maier  Microbiology of pressed beet pulp silage under practical conditions

10  Communication and cooperations
10.1 Zavanella, M., D. Rosini, N. Minerva  A Decisional Support System sustaining the Italian sugar beet growers
10.2 Raaijmakers, E., B. Hanse, P. Wilting, E. van Oorschot  Sugar beet diagnostic service: a winning system for all involved
10.3 Smit, A.B., K.J. Poppe  The position, role and future of cooperative sugar refineries in the EU
10.4 Risser, P., K. Bürcky  (Consumer) communication – sustainable beet cultivation