



Dairy farming and land use (2016)

奶牛饲养与土地利用(2016)



Wenxin Wang,
Alfons Beldman,



Jianping Wu, Chinese Agricultural University
Co Daatselaar, Wageningen University & Research

Background and objectives 背景和目标

Feed is critical for milk production. In China most feed is not grown on the dairy farm but on crop farms or it is imported. 饲料是牛奶生产的关键因素。在中国，大多数饲料不是奶牛场自产的，而是种庄稼的农民种植或者进口。

Objectives 目标

- Study decision making of stakeholders (dairy farmers and crop growers) 研究利益相关者(奶农和种庄稼的农民)的决策行为
- Learn from feed production chain in Netherlands 学习荷兰饲料生产链的经验
- Define recommendations 提出建议

Activities 活动

1. Design and execution of survey for dairy farmers and crop growers 设计和实施针对奶农和种庄稼农民的调查
2. Joint fieldtrip in China 联合在中国实地调查
3. Joint fieldtrip in Netherlands 联合在荷兰实地调查
4. Analyse data and define recommendations 分析数据并且提出建议



Results survey dairy farmers (n=29) 对奶农调查结果分析

General 一般情况

- Most feed is bought and not grown by the farmer 大多数饲料是奶农购买，而不是自产
- Average: feed costs is 77.9% of milk returns. 平均：饲料成本占牛奶销售收入 77.9%
- 21.5% maize silage, 35.1% concentrates, Chinese grass 6.1%, Corn 6.0%, 7.6% Alfalfa 饲料成本中：青贮21.5%，精饲料35.1%，中国羊草6.1%，玉米6.0%，苜蓿7.6%。

Feed quality 饲料质量

- Feed is never assessed as poor or very poor quality 没有饲料的质量被评为差或者非常差
- Chinese hay relative low quality (60% medium), Maize silage is 2nd (42%)
- Quality assessment is mostly done 中国羊草质量较低(60% 一般)，玉米青贮质量倒数第2(42% 一般)

Feed price and buying 饲料价格和购买

- Transport has big influence on price of feed. 运输对于饲料成本影响大
- Maize silage, straw and corn are mainly (2/3d) bought from crop growers 玉米青贮、草料和玉米三分之二来自种庄稼的农户
- Quality is most important criterion to buy, price is less important 质量是购买饲料的最重要标准，价格的重要性相对差一些。

Results survey crop growers (n = 97) 对种庄稼农户调查

Crops and Margins 作物和利润

- Planting area per crop farmer varies from 30-600 mu. 每个庄稼农户的种植面积在30-600亩之间
- Maize silage has the highest gross margin 玉米青贮的总利润最高
- Feed companies more professional than individual crop growers. For alfalfa, yield 2 times higher. 饲料公司比单个农户更专业。对于种植苜蓿，产量高出2倍
- Dairy farmers grow feed themselves by renting land nearby can save cost of 109 CNY per mu. 奶农通过租周边土地种饲料能够节省每亩109元人民币

Availability and rent of land 土地的可获得性和租金

- North of China rent CNY 300 to CNY 400 per mu. 中国北方土地租金每亩300元至400元
- Middle and south of China rent CNY 450 to CNY 1000 per mu, the rent is decreasing due to the price of corn fall down in recent years. 中国中部和南方土地租金每亩450元至1000元。近年来随着玉米价格下跌，土地租金下降

Incentives for better quality 提高饲料质量的激励措施

- Subsidies, insurance against crop failure 补贴，作物歉收的保险
- No one is interested in training. 没有人对培训感兴趣
- Main difficulties include high investment, quality assurance, low comparative efficiency, no subsidy, lack of technology. 主要的困难包括：投资高，保证质量，比较效益低，没有补贴，缺少技术。

Lessons field trips 实地调查经验

China 中国

- Dairy farms have to buy most of the feed and are dependent of quality offered, so first focus seems to be on quantity and not on quality. 奶牛场不得不购买大多数的饲料并且依靠所提供饲料的质量，所以第一选择似乎是重视数量，而不是质量
- Change in strategy of some companies → secure own feed supply 一些公司策略转变为保证自己饲料供应的安全

Netherlands: 荷兰

- Dairy farmers grow 60% of feed them selves, strong focus on quality 奶农生产60%的饲料，非常注重质量
- High quality standards for concentrate and other feeds 精饲料和其他饲料的质量标准高

Conclusions

Feed quality can be improved in China by 在中国饲料质量能够通过以下方式被改善：

1. Dairy farmers taking control of their own feed production by renting land nearby. 奶农通过租用周边农民的土地控制自己的饲料生产
2. Stimulation of the production of high quality feed by: 通过以下措施激励农民生产高质量的饲料
 - Setting minimum standards e.g. for dry matter content of corn silage 建立最低的标准。例如：玉米青贮的干物质含量
 - Relate price to quality, based on assessment by independent laboratories 根据独立实验室评估的质量，确定饲料的价格

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