

TRANSFORMATION PROJECT REPORTS

2007-2008 FINANCIAL YEAR

PROJECT NAME: INDUSTRY POINTERS
PROJECT MANAGER: Diale Mokgojwa
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Diale Mokgojwa

SUMMARY

The Industry pointers project involves Regional Managers' costs to identify all transformation activities within their jurisdiction. These include small scale, emerging commercial and empowerment partnership businesses.

OBJECTIVE

The primary objective is for Regional Managers to give pointers of all the transformation activities in different regions.

PROGRESS REPORT

Materials and Methods

The Regional managers used innovative ways to gather information at no cost. The information has been processed by the Transformation Manager and it forms part of the empowerment database. It is categorised into farmers who are producing on a small scale, the emerging commercial farmers and empowerment partnerships. What is also important is that there are farmers who intend starting the empowerment process in due course captured on the database. This enables us to specifically and proactively engage some of the farmers with the intention of assisting them with the process. In some instances, we use the services of third parties who are experts in these processes.

Results

The information was gathered without spending any amount of money. An amount of R10 000 that was budgeted for was as a result not spent.

Conclusions, lessons learned and recommendations

What is important is that in future strategies need to be developed to:

1. Service and add value to farmers who have started the empowerment process with various interventions. A well thought through decision would need to be made at the next strategy meeting on the specific role that need to be played by the Transformation division in this regard. Our role with regard to assisting the farmers with the seven elements of the score card needs to be clearly defined.
2. To create an enabling environment for those farmers who want to start the process of empowerment. E.g.
 - a. Creating an empowerment case library on what other farmers have already done.

- b. Create an implementation framework for the potato industry together with the Department of Land Affairs, Agriculture, Water Affairs, etc.
 - c. Facilitate the introduction of incentives with SARS, etc. for the farmers who start and effectively implement AgriBEE and reward the best practices.
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PROJECT NAME: BEE BASELINE STUDY
PROJECT MANAGER: Diale Mokgojwa
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Diale Mokgojwa

SUMMARY

The profiling of empowerment projects through a baseline study was not implemented due to the uncertainty within the agricultural sector at the time about AGRIBEE. The uncertainty was caused by the then pending thresholds for Qualifying Small Enterprise of 1, 5 million versus the 5 million.

OBJECTIVES 2007/2008

1. To determine the extent to which the potato industry has transformed
2. To determine how the empowerment enterprises are structured
3. To establish a case study library of empowerment enterprises in terms of the different models of empowerment and transformation
4. To develop systems to enable future empowerment enterprises to benchmark.

PROGRESS REPORT

Introduction

The National Department of Agriculture commissioned a baseline study across the whole agricultural sector. Whilst the primary objectives might differ with those set out by Potatoes South Africa, it might have caused confusion in the market place had we went ahead with our baseline study. The timing of the implementation of this project would not have been ideal within that context.

Materials and Methods

No materials and methods materials were used as this project was not implemented.

Results

The results of the baseline study conducted by the National Department of Agriculture at the time of writing had not been made public.

Conclusions, lessons learned and recommendations

1. The process could begin with a road show across the country to disseminate information on Broad Based Black Economic Empowerment;
2. Farmers can then voluntarily take part in the baseline study;
3. The timing for the implementation of this project at the beginning of 2009 would be ideal;
4. The AgriBEE charter has been finalised to a certain extend and this provides guidelines for implementation;

5. The implementation of this project could also take into account the report from the study already commissioned and conducted by the National Department of Agriculture;
 6. We could use the same company (Empowerdex) that conducted the study for the National Department of Agriculture or look at alternative options;
 7. The reception from some farmers might be positive now than it was in the past.
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PROJECT NAME: SKILLS DEVELOPMENT NEEDS SURVEY- INTERNAL PROCESSES
PROJECT MANAGER: Diale Mokgojwa,
IMPLEMENTATION AGENT: RED LEX 458 (PTY) LTD
STARTING: July 2007
FINISHING DATE: June 2011
WRITTEN BY: Pearl Prinsloo

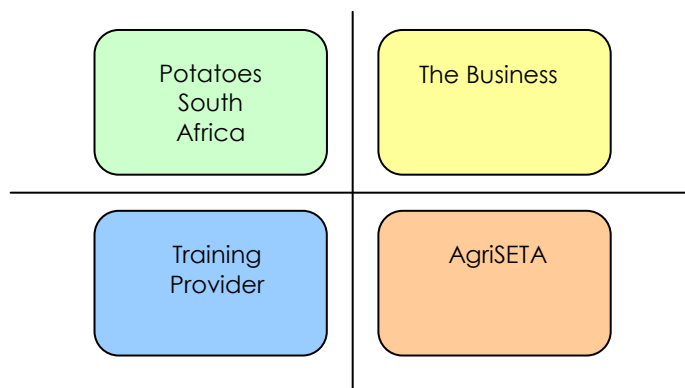
INTERNAL PROCESSES FOR SKILLS DEVELOPMENT

Background

This report outlines the suggested internal process that has to be followed in the implementation of skills development initiatives for Potatoes South Africa Farmers. This report derives from the Eastern Cape pilot project where the internal systems and processes were interrogated and thus suggest best practices.

Identify and involve key Role-Players

- One of the major challenges facing any business is getting the support from the right people (role-players). Owners and managers of a business don't always know who to contact for certain services that they require. Skills development brings with it uncertainty in terms of who will be providing support in terms of finance, training and co-ordination.
- Identifying key role-players that would contribute to and provide support in terms of skills development roll-out is the first step in the process.



The Role of Potatoes South Africa

Potatoes South Africa has developed a transformation strategy for their industry and one of the key deliverables of this strategy is to provide support to farmers in terms of business development (BEE) and skills development. It must be noted that *support* doesn't necessarily signify financial support. Potatoes South Africa will provide

consultative support to their industry where the need for training farm workers has been identified.

Therefore, Potatoes South Africa will offer guidance to their industry in terms of the implementation of Skills Development initiatives such as:

- Assisting the farmers to conduct skills audits
- Identifying the training provider that will deliver the training and identify and liaise with funding bodies such as the AgriSETA

Refer to: Annexure 1(Skills Audit)

The Role of the Farming Business

The Farmer's role / or Business role is to enable and roll-out the skills development initiatives programmes on the farm. The Farmer has to:

- Conduct skills needs analysis
- Identify the people for training, the types of programmes according to the needs.
- In most cases, the funding will come from the AgriSETA, however, there might be certain training that will not be covered, and the Farmer will have to finance this training out of the business budget.

The Role of the AgriSETA (Sector Education and Training Authority)

- It is important to understand the AgriSETA's funding structures and policies in terms of Skills Development Initiatives. The SETA has developed a Sector Skills Plan for the Agri Sector which in brief, outlines the SETA's commitments to the sector's critical and scarce skills and the funding vehicles that would be utilized for these. This document can be downloaded from their Website. www.agriseta.co.za.

Critical Note: AgriSETA

The AgriSETA will in most instances only consider applications that are being made by Employers – Farmers. The system is for its participants: Employers and Learners. During the pilot project phase, project members and farmers experienced a number of challenges with the SETA.

- Although the SETA does offer financial support for skills development, the money is not enough. Farmers will only get back in relation to what they pay in for the Skills Levy. Farmers who do not pay the Skills Levy will not be discriminated against; they will only be allowed to receive limited funding from the SETA.
- Different departments within the SETA manage different funding models and it proves to be a challenge to know who does what. The Learnership Department deals with funding for Learnerships and Skills programmes, while the Skills Department funds ABET and BEE interventions.
- Turn-round times on communication is challenging. SETA personnel are very busy and communication queries could take up to 2 weeks.

- The application forms for funding are user-friendly and these are available on the website. Farmers have to note that there are certain windows of opportunities that exist.
- Applications for learnerships are restricted to a certain time-period. The application period will be published in January and applications have to be submitted during that time.
- Applications for skills programmes and ABET funding is continuous, this can be done throughout the year.
- The SETA has a well-maintained database and information on service providers are very easy to obtain.

The Role of the Training Provider

- Finding a training provider in your area is a challenge in itself. The Agricultural Sector is not well equipped with accredited training providers in all the provinces and because of this training didn't happen as frequently as in other sectors.
- The Agri SETA has a database of accredited providers and the programmes they can offer.

Critical Note: Skills Audit

Audit the Skills of people before a programme is decided on. Providers must have an assessment tool to assess the worker's ability for a certain programme. Potatoes South Africa has developed a user-friendly assessment tool that is recommended to be used.

Refer to: Annexure 2 (Expression of Interest form)

- The Training Provider's role is to register the learners, do the training and assessment of the learners in the required timeframes. It is important that the Farmer has a service level agreement with the training provider in place for the following services:
 - *Time-frames* must be clearly outlined and adhered to. There are certain times of the year where training will be not advisable as it could impact on the operations of the farm. Planning when the training must happen is therefore a joint agreement between the farmer and the training provider.
 - *Logistics*. Most organisations prefer that training takes place at the business and for Farming businesses this is not different. The Farmer has to negotiate with the provider that all training where possible must happen on-site. This will eliminate the challenge of transporting people to a training venue, cost of transport, meals and accommodation. The provider could in such instances add to the budget for transport.
 - *Roll-out plan*. It is the role and responsibility of the provider to develop a roll-out plan. The plan must clearly indicate when training and assessment will be taking place. This plan will also be send to the AgriSETA together with the application for funding forms.
 - *Management*. There has to be a clear management tool of implementation in terms of report and record-keeping. The Farmer should insist on progress reports and assessment record keeping for SETA audit purposes.

Refer to: Annexure 3 (Service Level Agreement)

Critical Note: Payment

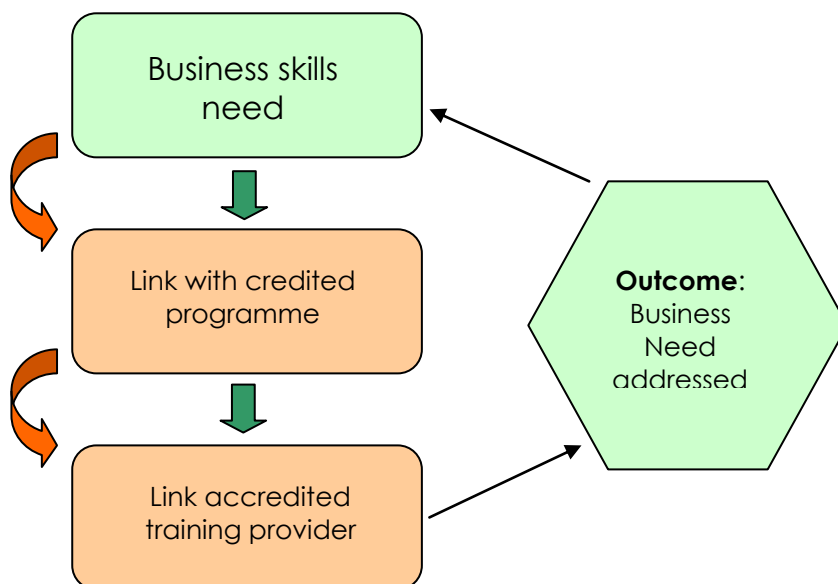
Payment: The Farmer and the provider have to agree on the method of payment. In the case where the AgriSETA funds the programme, the money will only be paid to the Farmer on completion of programmes. Therefore, the Farmer should only pay the provider after he/she has received the funds from the SETA.

Refer to: Annexure 4 (Provision Procedures)

Conclusion

- The roles of the different Role-players were discussed in detail above and should guide Farmers further with the process.
- The remainder of the report focuses on the role and outputs that the Business is responsible for.
- Conduct Business Needs Analysis
 - It is essential for farmers to conduct a business skills analysis before they decide what training they would like their staff to go on. Farmers have to ask themselves a number of important business questions:
- What are the current business processes on the farm?
- Are there skills shortages linked to current business processes? Important questions to consider:-
 - Are there people that require skills training for the current work they are doing?
 - Who are they and what are they currently doing?
 - Could I do the training myself, or would I prefer a training expert to come train my workers?
 - Would I like to invest in people and offer them an opportunity to further education and training? Programmes such as Learnerships and Apprenticeships are tailored specifically for people who have the ability and capacity to cope with structured learning.
 - Would it be beneficial to my business to multi-skill and train people for not only the work they perform, but also skill them in other areas?
 - What are the future plans for the business i.e. extending the farming business into other areas such as animal production, planning other crops?
- Taken the future business venture into consideration:
 - Do I have staff that are skilled to perform the new functions; or
 - Will a short skills intervention be necessary; or
 - Will I advertise and employ people who already have the skills?
- Develop a short and long-term training strategy
 - From the above questions, it is evident that the farmer will arrive at a strategy for short and long-term training interventions and the prioritizing of these.
- A *short-term* training strategy will classify the training that will happen immediately for a specific job, or for more than one job. These courses are generally no longer than 3 weeks. Courses such as pest control, vehicle maintenance, harvesting, planting, etc. generally falls in this category.

- A long-term training strategy will include training people for new future business interventions *and* further educational and training programmes such as Learnerships and Apprenticeships. The duration of these courses is generally 12 months. It covers both on-the-job and off-the-job training.
- Identify Training programmes
 - The Business Skills Analysis phase would've specified the types of training interventions that are required for people. The challenge is to link the business training need with:
- an existing credited programmes with an accredited provider



- A list of credited skills programmes, learnerships, apprenticeships and ABET programmes are available on the Potatoes South Africa website. Alternatively, these programmes could be put together by the Farmer and provider.

Refer to: Annexure 5 (Workplace Requirements)

Tip:

Farmers could select different unit standards from programmes and compile their own skills programme. It is important that all the unit standards are registered.

- Set up internal supporting structures:
 - At this stage, the Farmer has decided which workers must go on which programmes, the farmer has selected a training provider and an application for funding has been lodged with the SETA.
 - The next phase is to set-up internal supporting structures within the business. It doesn't have to be a huge structure and it could integrate with the normal admin and human resources functions. The purpose of an internal structure is:

- To communicate with the SETA on funding and payments. In the event of a learnership, quarterly reports must be given to the SETA in order to proof progress of learners and to claim the next payment.
- To communicate with the training provider. Requesting progress reports and dealing with logistics such as training and assessments. The structure will also track the payment records and the final payment on completion.
- To communicate and co-ordinate the workers / learners. An attendance register has to be kept for when workers are on training and assessments. Workers have to be notified on when the training and assessments will be taken place, and workers have to be prepared for this.
- To offer support to workers / learners. Ongoing support is required to those who are participating in further education and training.
- To deal with worker / learner complaints and appeals against the training in the unlikely event.
- To communicate with Potatoes South Africa. The workers that were identified for training will have to be registered with Potatoes South Africa. This form is available on PSA website.

Conclusion

This report has been developed for the Potato Industry in line with Potatoes South Africa Transformation Agenda. The pilot project in the Eastern Cape initiated a response to the processes and challenges facing the industry in terms of the implementation and roll-out of Skills Development Initiatives.

PROJECT NAME: AGRICULTURAL INDUSTRY BODIES TRANSFORMATION
COOPERATION
PROJECT MANAGER: Diale Mokgojwa
STARTING DATE: July 2007
FINISHING DATE: June 2010
WRITTEN BY: Diale Mokgojwa

SUMMARY

The agricultural industry transformation workshop was held on 23rd March 2008 at Airport Game lodge. The workshop was funded by Potatoes South Africa and was attended by 12 delegates out of the 25 that had initially indicated that they will attend. The workshop was facilitated by Nicola Tyler from Business Results Group.

OBJECTIVES 2007/2008

1. To develop a common understanding of transformation and all its guises
2. To identify common ground and challenges
3. To find practical solutions to address the challenges
4. To establish a high level communication platform

PROGRESS REPORT

Materials and Methods; conclusions and recommendations

Refer to: Annexure 6 (Agricultural Industry Transformation Workshop)

PROJECT NAME: LEARNING MATERIAL DEVELOPMENT
PROJECT NO: 5
PROJECT MANAGER: Diale Mokgojwa
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Diale Mokgojwa

SUMMARY

In line with the transformation strategy and with special reference to the capacity building and training focus area, it is imperative to have appropriate learning material to deliver the training with.

Two parallel processes in this regard were undertaken in order to develop finalise the contextualisation of potato specific learning material and the development of a pack house DVD.

OBJECTIVES 2007/2008

- To contextualise the generic learning material to become potato specific.
- To develop a pack house DVD that provides guidance to pack house managers and supervisors on best practices.

PROGRESS REPORT

Materials and Methods

NQF 1 learning material

The final act in contextualising the already developed learning material was to give it to a Subject Matter Expert.

The subject matter expert used in this regard is an experienced and retired former professional in the industry known as Dr Pierre Nortje. He spent some time fine tuning the material and liaising with Pearl Prinsloo to ensure that the material produced is of the highest quality.

Refer to: Annexure 7 (NQF 1 potato specific learning material)

Pack house DVD

The development of the pack house DVD was outsourced to a production company called No- Line Communications. The DVD was shot on the 18th July 2008 at a farm belonging to Gert Bester in Petrus Steyn in the Eastern Free Sate.

Results

Refer to: Annexure 8 (Pack house DVD)

Conclusions, lessons learned and recommendations

1. The NQF level 1 potato specific learning material is available for implementation.
 2. The following recommendations were made by the Executive Management regarding the pack house DVD:
 - a. There be a window period for comment from the managers, Transformation Committee and some farmers
 - b. That the DVD should be launched and various media should be invited.
 - c. An implementation framework is designed to help farmers to effectively utilise the DVD.
 3. It needs to be considered that the pack house learning material is already developed and can always be referred to when more detail is required during training.
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PROJECT NAME: FARM BASED TRAINING
PROJECT MANAGER: Diale Mokgojwa
STARTING DATE: July 2007
FINISHING DATE: June 2008

WESTERN FREE STATE SKILLS DEVELOPMENT

Western Free State Potato Seed Growers

WRITTEN BY: *Bronwyn Palmer*

Background

Western Free State Seed Grower's (PTY) LTD has been working in conjunction with Agri-IQ (PTY) Ltd since 2005. Agri-IQ is an agricultural training and management company with experience in the fruit and sugar cane industry.

The main objective was to address the human development, training and management needs within the seed potato growers in the Western Free State Seed Grower cluster. Western Free State Seed Grower's (PTY) LTD wanted to make a meaningful difference, through a sustained Social Responsibility Programme, to their agricultural workforces who seek to empower themselves, therefore contributing towards a better and more prosperous South Africa.

Western Free State Seed Grower's (PTY) LTD has a vested interest in the future of agriculture in the Christiana area and this extends to ensuring that the working and educational environment of all South Africans is improved. Marinda Nieuwoudt heads up the training for Western Free State Seed Grower's. This involves co-coordinating Adult Literacy and Occupational Based training for farmers on a daily basis.

Adult Literacy:

The Western Free State Seed Grower's (PTY) LTD cluster in partnership with AGRISETA and *Media Works* has embarked on an Adult Literacy Project. This partnership will provide support for a programme in Adult Basic Education and Training in the sub-fields of mother tongue education, Basic Afrikaans literacy, Basic English literacy and Numeracy. Each of the 13 farmers has built training centres. All lessons take place within the allocated times and employees are moving up the different competency levels.

Occupational Based Training

The accredited courses in the crucial areas of agri business, leadership development, technical skills, and health training all form part of the training profile.

Believing that training should be challenging, stimulating and anchored in the real world we strive to provide training initiatives which achieve this. All trainers are experienced and have national accreditation with the South African Department of Labour.

The focus is short term and directed at providing knowledge and skills needed by individual potato employees to carry out their current work duties efficiently and effectively.

Western Free State Seed Grower's (PTY) LTD are striving to make meaningful differences, through their social responsibility and training programmes, to their workforce and new "owner" communities through York Agric. They are hoping to introduce potato learnerships in the near future as well as expand their empowerment training.

CERES & KOUE BOKKEVELD DISTRICT SKILLS DEVELOPMENT

WRITTEN BY: Joy van Biljon; KOUE BOKKEVELD TRAINING CENTRE

Introduction

It is with great appreciation that this report is compiled. The financial support during the last financial year, received from Potatoes South Africa has made a very valuable contribution. The goal of the Koue Bokkeveld Training centre is to improve productivity and to stimulate human development on the farms in the region through the provision of meaningful training

To achieve this goal numerous training and development initiatives are undertaken.

Fruit vs. vegetables: Many of the farms in both the Koue Bokkeveld and Ceres area farm with both fruit and vegetables. Training budgets have traditionally been spent on fruit, which is generally regarded as more difficult. The aim of the training centre is to assist as many people as possible and simultaneously to fairly reflect all sectors of the economy. The money received from Potatoes South Africa has made a large contribution to achieving this goal.

During 2006 only 40 of the students trained focussed on vegetables, while in 2007 it increased to 126. (Approximately 1% of all training, while fruit is about 24%)

Transformation and empowerment: these are important issues and in line with the centre's overall development goals. Empowerment projects, especially in the form of share holding, are popular with local farmers. They however require extensive knowledge and here again the funding from Potatoes South Africa was very helpful.

Three different batches of funding were received from Potatoes South Africa: one during the previous financial year and two payments during this year. Each was earmarked for specific training as follows:

NQF 1 Learnerships

R26 000 was received for learnerships. The students were sponsored with this money and the commercial farmers paid the other 50%. The 4 students that were identified were chosen because they have clear career paths and are in good mentoring situations.

There results were as follows:

1. Jaffa Galant from Boplaas

Jaffa moved from fruit to vegetables 2 years ago and was in charge of irrigation. His natural leadership abilities made him an ideal candidate for a supervisory post, which he was promoted to. The plant production learnership gave him good vegetable knowledge. His mentor, on the farm, has since entered him into a junior management (NQF 4) learnership, for which he has been tested and approved. He should complete it by the end of 2010 by which time he will be the vegetable manager of the farm.

2. Antonie Visagie from Denou

Antonie is a supervisor with Goosen Boerdery and works mainly on their empowerment farm, Denou. He too, is a natural leader and his career path was one of rapid upward mobility from the beginning. He also gained a great deal of agricultural knowledge from the learnership sponsored by Potatoes South Africa.

He already takes a great deal of responsibility and at one stage during the learnership experienced problems with time management and missed some classes. A session with him and his farm mentor, Werner du Plessis, however resolved the problem and he did well. He is also now due to start the junior management learnership.

3. Jan Gouws from Morester

Jan Gouws was also identified as a strong leader and continues to receive very good reports from his farm mentor at Morester. Despite his enthusiasm and interest, he has not done well as a student. He seems to have an aversion to books and papers! Although he absorbs the knowledge and seems quite capable of applying it in practice, he struggles to do assignments and tests. (This happens despite the fact that he is highly literate). He is therefore not yet competent and has until June when he will be assessed again.

4. Brandel Klaaste from Donkerbos

Brandel was a disappointment because his immaturity stood in the way of his results. He was the youngest student in the class. He is not focussed enough at this stage of his life. He is not competent yet and has until June to work on his Portfolio of Evidence for re-submission.

Evaluation

There were 21 students in total in the learnership class: 4 vegetables and 17 fruit. 3 students are not yet competent – of whom 2 are vegetable students. This cannot be coincidental.

The following are some factors which we believe make it more difficult for vegetable students:

1. They are in the minority
2. They have to do more self study than fruit students

3. Their planting and harvesting seasons are very extreme : short and intense, which interferes with their class attendance
 4. The various kinds of vegetables are very diverse; but they are expected to have a basic knowledge of various vegetables for them to earn enough credits.
- To only focus on one type of vegetable, would also be very difficult in terms of sufficient learning material and level of stimulation.

Did we achieve what we set out to do? All 4 of the students are doing very well in production on the farms. That is always our first consideration. 2 of the students are living out the career paths developed with them beautifully. Jan Gouws might need some remedial evaluation before he is fully able to achieve the qualifications he would like to. Brandel might also move to a more senior level when he is older.

Vegetable short course

20 students were identified for this course. They were all Xhosa or Sotho speaking people who are not in the permanent employ of the farm, but who show potential and could either later be offered permanent jobs or be able to do their own vegetable production more independently. They were a very enthusiastic group and their attendance was 100%. They are the kind of people normally overlooked by training. Their academic ability was generally better than we had anticipated. They completed the plant physiology, planting, irrigation, pests and diseases and ended off their course with a field trip.

This group has been a very exciting success. All the farms are very happy with the knowledge and insights the students brought back to the farms. Considering that these are not permanent workers, the results are amazing. All of them have been "noticed" by the farms where they work. About half of the class has subsequently been sent for leadership (mainly supervisor) training. 2 of Sneekop's students will start their NQF 1 plant production learnership in March and one has been promoted to a tractor driver and became permanent. The student from Sterkwater will also be starting his learnership and both Bronaar and Donkerbos have applied for funding to put their students who were on the vegetable short course onto learnerships. These are unprecedented results for the training centre, for non-permanent African workers and for the vegetable divisions. The obvious aim of the course was to impart vegetable knowledge, but the result was a very useful tool in the identification of potential leaders.

Trustee training

The trustee training is aimed at farm workers who are shareholders in a land reform project and represent the workers' trust as trustees. 39 trustees from 6 different land reform projects started with the training. The training went very well for the majority. It included a weekend "spanbou", sessions on calculations, finances, the realities of share holding as well as a strategic session with their commercial partners. Although the Potatoes South Africa' sponsored part of the training is now complete, there are ongoing negotiations between Dept Land Reform, Dept Labour, ourselves and the projects to secure more training for the shareholders who are not trustees.

Land reform and transformation are extremely complicated. There are so many issues of distrust and ignorance that have been part of the culture for many years.

There is a correlation between successful training for land reform beneficiaries and the level of participative management they have been exposed to before the project. One of the farms, who were part of the training, did not make full use of the opportunity. That particular project is not very well managed and their attendance was poor. To an outsider the impression is created that it is only called land reform and that in fact very little empowerment is taking place.

The majority of the farms did well. The trustees have more confidence. They know that they need to meet alone at times.

They have a basic idea of how financial statements work. Although the course is on an introductory level, the students all reported to have learnt a lot. Most importantly, they felt they knew enough to know when to ask for help. As training providers, we feel they have a good orientation and really need to put their knowledge into practice before they are confronted with more facts. We suggested to them that they do some "non-land reform" training (especially numeracy and finances) before looking in more detail as their specific projects.

On the whole the individuals who were identified for the training are people who have attended other courses at the training centre before and are capable of taking the responsibility. However, the magnitude of the decisions that need to be made and the complexities of keeping poor shareholders happy are really overwhelming. The leap people are being expected to take is huge. Although we are confident that we are providing good training, we are not confident that the projects will achieve the true empowerment they claim to seek.

What needs to be done? We feel training money needs to be spent on both the trustees and the shareholders. Our fear is that shareholders do not experience their shares as a benefit and that many may try and sell at the first given opportunity. If the individual does not know how to spend his money wisely, he will waste it and end up in a worse position than the one he started in. To be successful there needs to be clear long-term benefits for the shareholders and they need to be able to recognise them.

Evaluation of the whole initiative

The identification of needs for Potatoes South Africa was very accurate and all 3 sponsorships made a very useful contribution.

The balance between identifying senior people who can move up the ladder and simultaneously bringing new talent into the vegetable farming, worked very well. As a training provider I am very happy with the work done by the trainers. The trainers were enthusiastic and made a great effort to ensure that what they were teaching was relevant for the circumstances from which the students were coming.

Challenges

There are some challenges from my perspective that I feel we all need to consider:

1. There are very few people involved in potato production. My best efforts to prioritise people working directly with potatoes were not successful because there are so few people involved in potato production. One of the big

potato farms in the Koue Bokkeveld is so mechanised that it is really only the farm owner and a tractor driver who are directly involved with the potatoes.

It was understandable that he did not want to put the tractor driver on a course which he could do "nothing" with. How does one "transform" people and structures when they are being replaced by machines?

2. When is an empowerment project empowering? We found that not all shareholding schemes are in fact empowering and that some are run very autocratically. Others on the other hand give people wonderful skills and exposure. It is very difficult to categorize these projects on external superficial impressions and the reality only becomes clear once training is on the go.
3. All the farms in the Boland are experiencing a labour crisis. In the past the majority of farm workers lived on the farms and were in permanent employ. Seasonal workers were brought in for a maximum of 3 months from the North Eastern Cape and Eastern Cape areas. Now things are very different and the latter groups are semi-permanent working on the farms for up to 10 months. Seasonal workers (casuals), on the other hand, have almost completely disappeared. This has given rise to a very complex and volatile situation. Previously the supervisors were all "coloured" and Afrikaans speaking. Seasonal workers did not have supervisors and now there is a dire need for Xhosa and Sotho leaders. To successfully identify these leaders is proving a challenge. If this is not done successfully a worse crisis is looming.

Future projects

Although the whole project would be worth repeating as it is; the following are other possibilities worth investigating:

1. Training for potato shareholding land reform trustees outside the Witzenberg region.

This would need to be investigated properly. It does however seem likely that this need exists wherever commercial farmers have opted for empowerment projects. The proximity of the Sandveld would make it cost effective to run a project along these lines. As an initial starting point, Potatoes South Africa could sponsor Mr Joos Engelbrecht to do a preliminary visit, possibly followed by a group visit to The Ceres / Koue Bokkeveld projects. A similar visit by the potential trainers to the farms in the Sandveld would also be necessary to ensure the correct adaptation of the learning material.

2. Vegetable short course for another 20 students

The enormous benefits of the course have been clearly specified. For R1200 per person for 20 people (R24 000) it would be possible to present the course to a new group.

3. *one-day shareholders orientation*

For R200 a day plus travel, it is possible to work with a group of 20 shareholders, who are not trustees. During the day the realities and opportunities of shareholding are

considered in a simple, honest way. All projects need to put all their shareholders through a session from time-to-time.

Conclusion

Potatoes South Africa has been a very supportive and easy sponsor to work with and it was very encouraging to have a visit from Diale and the trustees. Should you have any future projects with which we can help, we would be more than willing.

PROJECT NAME: POTATOES SOUTH AFRICA IN-HOUSE BEE TRAINING
PROJECT MANAGER: Diale Mokgojwa
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Diale Mokgojwa

SUMMARY

The in house training of Potatoes South Africa personnel on Broad Based Black Economic Empowerment was not done due to the uncertainty at the time about AGRIBEE.

OBJECTIVES 2007/2008

1. To capacitate managers especially regional managers on the policy of Broad Based Black Economic Empowerment
2. To enlighten managers on how the policy affect the business of Potatoes South Africa
3. To strategise and position Potatoes South Africa strategically in line with the principles of the policy
4. To empower regional managers with information to be in a better position to deal with farmers enquiries on the subject

PROGRESS REPORT

Materials and Methods

No training was conducted and all managers were given the BBBEE strategy and the Act to peruse at their own leisure. The roll out of the process of addressing enquiries from farmers was handled in this particular framework:

- The item was included on the agenda for Regional Management
- An expert from the BEE Directorate was invited to make a presentation on the policy and answer questions

In the event where the expert was not available, Diale Mokgojwa, the Transformation manager fulfilled the role.

Results

It was not necessary to spend any amount of money as experts came from the National Department of Agriculture who are the primary custodians of the policy.

Conclusions, lessons learned and recommendations

- Refer to the recommendations made on the BBBEE road show and base line study

PROJECT NAME: SCHOOLS POTATO PLANTING PROJECT
PROJECT MANAGER: Immaculate Zinde
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Diale Mokgojwa

SUMMARY

The schools potato planting project is one of the programmes of the International Year of the Potato. The project involves planting potato gardens at selected schools to educate the school children about potato planting methods and also about the nutritional value of potatoes. The project is implemented by both the Marketing and Transformation divisions of Potatoes South Africa.

OBJECTIVES 2007/2008

1. To increase the per capita consumption of potatoes by changing the mindset of school children about potatoes
2. To train school children about the potato production practices
3. To relay the message about potatoes to the parents through school children
4. To develop a culture of potato food gardens in communities starting at schools

PROGRESS REPORT

Introduction

The schools potato planting project did not start at the beginning of the year due to the planting seasons for the targeted areas. The planting only took place after the end of the financial year and will continue in different areas well into 2009.

Materials and Methods

The budget was intended to fund the purchasing of inputs and other tools necessary for the success of the project. In some instances the seed was donated by farmers and it did not cost any money for the planting to take place.

Results

The results of the schools planting will actually be known at and of the 2008/09 financial year.

Conclusions, lessons learned and recommendations

1. The schools potato planting is a very good project with good underlying intentions.
2. I would recommend that the management of the project be moved from the Marketing division into the Transformation division to ensure proper planning and execution is done with regard to planting.

3. The Transformation Committee would need to decide at the next strategy meeting in February next year if this is a priority project or not and if it is how much time and money need to be spent on it.
-

PROJECT TITLE: INFORMATION DISSEMINATION
PROJECT MANAGER: Diale and Gawie.
STARTING DATE: July 2006
FINISHING DATE: June 2009
WRITTEN BY: LIVHU NGWEKHULU

SUMMARY

An amount of R40 000 was made available for the dissemination of potato information to emerging farmers via print media. Various agricultural magazines were invited to make their presentations on how best they can add value to Potatoes South Africa through publication in their respective magazines. The magazine called Farming SA was chosen as the preferred partner to disseminate information. Potato related information on planning, budget, and cash-flow statements inserts were used and distributed by Farming SA.

OBJECTIVES 2007/2008

- Farmers receiving potato production information regularly
- Farmers using that information to improve their production

PROGRESS REPORT

Introduction

Emerging farmers on the ground usually do not get the latest information that becomes available in the industry, distributed by CHIPS magazine. On this background, it was decided to create a vehicle for potatoes information dissemination to the ground level.

Materials and Methods

Three agricultural print magazines were invited to Potato House for their presentations, viz. Nufarmer, Farming SA, and NAFU News.

Results

It was decided to give Farming SA an opportunity to print inserts with:

- Information about Potatoes South Africa
- The Transformation strategy
- Some transformation success stories
- The framework for potato planning and planting
- Production costs
- Cash flow

Refer to Annexure

The inserts in the Farming SA magazine were used and some were delivered to potato house and are still used today to distribute to farmers during meetings and presentations.

Conclusions and recommendations

The response from the farmers shows that the exercise had a wider reach and can still be considered in the future.

Refer to: Annexure 9 (Potato production planning, budget and cash flow)

PROJECT NAME: UNDERGRADUATE BURSARIES
PROJECT MANAGER: Livhuwani Ngwekhulu
STARTING DATE: July 2007
FINISHING DATE: June 2011
WRITTEN BY: Livhuwani Ngwekhulu

SUMMARY

PIDT funded a group of students comprising five (5) undergraduate students and six (6) post-graduate students for their studies at various institutions in our country. The undergraduate are technical oriented training at colleges of agriculture while the post-graduate are scientific oriented at universities.

OBJECTIVES 2007/2008

- Develop capacity in undergraduate 70% practical or technical output.
- Develop capacity in post graduate 100% scientific outputs.

PROGRESS REPORT

Introduction

As part of skills development for the agricultural industry, in particular potatoes, it is imperative that we start nurturing talent at young level through the identification of potential students who can go on to become successful farmers and those that are doing research on potatoes.

Materials and Methods

Various colleges have been identified for training students on potatoes where the courses offered are already tailor-made for and include potato production in their syllabi. Glen College of Agriculture (one student), Lowveld College of Agriculture (one student) as well as Cedara College (two students) were chosen. In addition, one undergraduate student doing his BSc Agric was chosen from the University of Fort Hare.

Five (5) post-graduate students were chosen from the University of Pretoria (UP) and one from Fort Hare. In total, all under and post graduate students under PSA sponsorship number 11.

SCHEDULE OF BURSARS FOR 2008

Names	Surname	Institution	Qualification
Undergraduate:			
Bokamosho Tshegofatso	Moilwa	Glen	Diploma
Lazola	Sothondoshe	Fort Hare	Bsc Agric
Phumzile	Ngcobo	Cedara	Diploma
Potego	Tebele	Lowveld	Diploma
Nhlakanipho Maxwell	Mcetywa	Cedara	Diploma
Post graduate:			
Boitumelo Elijah	Pitsi	Univ. Pretoria	MInst Agrar
Sharika	Baijnath	Univ. Pretoria	Bsc (Hons)
Estiene	Moller	Univ. Pretoria	Bsc Agric 4 th year
Ntombuzuko Linoria	Mafu	Univ. Fort Hare	Bsc Agric (Hons)
Lungile Innocencia	Nkosi	Univ. Pretoria	MInst Agrar
Cornelia	Millard	Univ. Pretoria	PhD

* Co-sponsored with Syngenta to the tune of R15 000 (R7 500 each)

** Co-sponsored with Syngenta to the tune of R20 000 (R12 000 PSA, R8 000 Syngenta)

Conclusions and lessons

It is a very good program, it has to be emphasised however, that payments to the learners have to reflect their midyear academic achievements. One of the students, Ms N L Mafu, has actually failed all her first semester courses. This resulted in Bursary Committee recommending that the payment for the second semester be withheld and appropriate measures, such as mentoring and coaching, be applied to remedy the situation.

PROJECT NAME: INTERNSHIP PROGRAMME
PROJECT MANAGER: Livhuwani Ngwekhulu
STARTING DATE: July 2006
FINISHING DATE: June 2011
WRITTEN BY: Livhuwani Ngwekhulu

SUMMARY

Two students from Glen College and one from SAND were taken into PSA's internship programme, where they were afforded opportunity to gain some practical experience required to complete their diplomas. They are all engaged on a one-year contract.

OBJECTIVES 2006/2007

- Expose students to the potato value chain and acquire specific competencies through this exposure.
- Candidates complete specific level of their development in a competent way.

PROGRESS REPORT

Introduction

As part of their curricula, students are required to complete some period of practical exposure in agriculture ranging from 6 months to a year in order for them to complete their studies. PSA takes this as an opportunity to identify talented individuals and place them at their desired areas, where applicable.

Materials and Methods

Selection of the students at Glen was based on their performance in the potato practical, which forms part of the curriculum. Students at Glen College are supervised by Mr. Makungu, who is Vice Principal, and in SAND the student was supervised by Human Kotze, the Manager of SAND potato research farm. Potatoes Certification Services and Potatoes South Africa teamed up to sponsor a student from Tshwane University of Technology, who is now based in Christiana, under the supervision of Jamie van Vuuren, Senior Certification Officer starting from January 2008.

List of interns as at mid September 2008

- Mothlake Nthuse Frans, a 23 year old guy from Modimolle in Limpopo.
- Three other students namely: Sylvester Matlakala, Lebogang Moswaliba and Mandy Barnes all completed their internships in June.

Results

Desired results were achieved as all the students (with the exception of N F Mothlake, who is still engaged in the program and has already passed his first semester assessment) managed to obtain their qualifications and went on to the workplace experience program. One of the intern products is helping us in KZN currently under the workplace experience program.

Conclusions and lessons

A program has now been developed where students are identified at second year level and rise through workplace experience in the potato industry. Students should be exposed to their career ambition areas for internship to obtain the best from them. PSA can add more manpower via the use of these students.

PROJECT NAME:	WORKPLACE EXPERIENCE
PROJECT MANAGER:	Livhuwani Ngwekhulu
STARTING DATE:	July 2007
FINISHING DATE:	June 2011
WRITTEN BY:	Livhuwani Ngwekhulu

SUMMARY

A total of three students were placed under workplace experience under the auspices of Potatoes South Africa during the year under review. Two were at Glen and the other one with Kaap Agri in Cape Town. One of them was absorbed by the industry before completing, one only started working in January this year and the other one ran her full program.

OBJECTIVES

- Candidates acquiring workplace experience from being exposed to and working at a potato farm or agribusiness.
- Candidates making informed decisions about their career choices based on the exposure and experience.

PROGRESS REPORT

Introduction

After completing their practical experience, students usually lack real work experience that will make them competitive and able to offer the industry their skills at full potential. Potatoes South Africa took this opportunity to cover the gap by introducing workplace experience programs.

Materials and Methods

The program involved three students, Glen College of Agriculture, GWK as well as Kaap Agri where students had the opportunity to learn about real work skills to make them ready for the employment world. Hereunder is a list of candidates:

- Mr. Sylvester Matlakala is based in Pitermaritzburg where he is helping PSA with the organising of Potato farmer structure on the ground.
- Mr. Richman Mavimbela is based in Cape Town with Kaap Agri where he is working on potato related trade environment.
- Ms. Mandy Barnes is based in SAND where she is completing her workplace experience under the guidance of Human Kotze.
- Mr. Lebogang Moswaliba got a permanent job with the municipality in the Eastern Free State beginning from September 2008.
- Ms. Jeanet Msaule finished her workplace experience in June this year and unfortunately she still hasn't found a job.

Results

The program helped students to secure jobs in the agricultural industry and the main aim has been achieved.

Conclusions and lessons learnt

This program has become a very good platform for PSA to equip students with job skills. Candidates can be used to add work force to PSA where necessary.

PROJECT NAME: OUTSOURCING SERVICES
PROJECT MANAGER: Diale Mokgojwa
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Diale Mokgojwa

SUMMARY

The was not really a project but money that was warehoused under this code as a result of the decision by the Audit Committee prior to the commencement of the previous financial year.

I had initially budgeted to employ a regional officer for KwaZulu-Natal to service the farmers in that region. That plan was subsequently overturned by the Audit Committee and all the money budget for that appointment was warehoused under this project. It was meant to cater for any costs that might not have initially been budgeted for. In this instance such costs included mainly consulting costs for the service of skills development expert I contracted to develop the procedural rules and strategy for and implementation framework for skills development.

PROJECT NAME: GLEN, JAGGERSFONTEIN & SANDVET TRIALS
PROJECT MANAGER: Charl Nel, Potatoes South Africa, Bloemfontein
STARTING DATE: July 2005
FINISHING DATE: June 2011
WRITTEN BY: Melvin Makungu

PROJECT OBJECTIVES

- To give first year students a good background on the Potato Industry in SA which includes: potato production, marketing and the structures within the industry.
- To identify students who would like to “specialize” in potato production, marketing etc
- To identify students who will “manage / co-ordinate” the planting at Glen and other sites
- To identify, appoint and place “Project coordinators” on an INTERNSHIP PROGRAM under mentorship of Glen

1.1 INITIAL PROJECT THRUST

Since December 2001, Potato SA and Glen College of Agriculture have been running a mutually beneficial partnership that is geared to ensure training of students in potato production is achieved through applied research. The objective of the said partnership is to develop students so that they will be able to produce potatoes efficiently when they become farmers after graduation. The said development is achieved through transfer of appropriate technology from Potato SA to students. Transfer of appropriate technology is achieved through a collection of initiatives such as donation of potato production and potato grading guides and books to the Glen College of Agriculture. To wit, Potato SA has donated ample copies of a useful reference text called “Guide to Potato Production in South Africa” which was published in 2003 by the Agricultural Research Council (*Roodeplaat Vegetable & Ornamental Plant Institute*). Additionally, Potato SA has on a yearly basis been providing “On Field Lessons” and donating potato production inputs both which have been used to comprehensively train students in all practical aspects of potato production right through to grading and eventual marketing of potatoes. Suffice it to mention that Potato SA has also provided pieces of specialised equipment such as potato lifters which has led to students being able to conduct yield trials on a number of popular potato cultivars on an annual basis. Potato SA has also introduced students to operators in the entire potato value chain which include seed suppliers, pesticide suppliers, fertilizer suppliers, marketing agents etc.

1.2 NEW DEVELOPMENTS IN 2006 (BETWEEN 1ST JULY AND 30TH SEPTEMBER 2006)

1.2.1 INTRODUCTION OF AN INTERNSHIP PROGRAM

As from July 2006, the Potatoes SA–Glen College Training and Research Partnership introduced an Internship Program that is essentially an extension of the training that is offered to students. The internship in fact involves mentorship of graduates of Glen College of Agriculture for at least a year. The intention of the internship is to further the objectives of the partnership in a manner that will allow a selected number of graduates to be mentored in a manner that will further their chances of acquiring their own farms where they will produce potatoes among other crops. Being that they are graduates, Interns are further exposed to role players in the potato value chain as they engage in feasibility studies that lead to generation of actual production plans that they use to produce potatoes at different farms around the Free State. Interns also use the knowledge they have acquired to assist emerging farmers who are keen to enter the potato production fraternity. The following are the initial interns that were enlisted in July 2006:

LIST OF INTERNS AS AT JULY 2006

- (a) **Intern N° 1** : Mr. Fanyane Mokoena (22 year old male diploma graduate from Qwa Qwa in the Free State)
- (b) **Intern N° 2** : Mr. Mpokopelo Hlongwane (23 year old male diploma graduate from Bergville in KwaZulu Natal)

Speaking in an inaugural interview with mentors, both Interns had fondly indicated their desire to become successful potato farmers.

They both indicated that they are, for now, happy with the fact that Potatoes South Africa is paying them a monthly stipend (*not exceeding R3 400*) for participating in the Internship Program and they went on to say that they, in the near future, yearn to be self reliant as successful potato farmers who will create jobs rather than remain job seekers for life. Both interns had expressed willingness to visit schools in order to encourage youth to study potato production. Unfortunately, circumstances beyond the partnership's control forced Intern N° 2 (*viz Mr. Mpokopelo Hlongwane*) to withdraw (*around mid September 2006*) from the Internship program for a career at Spoornet where he was offered a full time job. Suffice it to mention that the said Mr. Hlongwane left an amazingly high phone bill on his official cell phone which the partnership is presently trying to have Mr. Hlongwane to pay for. Having felt unhindered by the latter developments, the partnership was duty bound to replace Intern N° 2 (*i.e. Mr. Hlongwane*) with another Intern. Gender took centre stage at this stage of the Internship program. This is the reason why the 24 year old Ms. Jeannete Msaule from Viljoenskroon was appointed to replace Mr. Hlongwane resulting in the following Intern landscape:

LIST OF INTERNS AS AT MID SEPTEMBER 2006

- (a) **Intern N° 1** : Mr. Fanyane Mokoena (22 year old male diploma graduate from Qwa Qwa in the Free State)
- (b) **Intern N° 2** : Ms. Jeannete Msaule (24 year old female Higher Certificate graduate from Viljoenskroon in Free State)

1.2.2 ACHIEVEMENTS OF THE INTERNSHIP PROGRAM IN THE QUARTER JULY 01 TO SEPTEMBER 30TH 2006

The following are the specific achievements that were scored during the quarter July 01 to September 30th 2006:

1.2.2.1 50/50 GENDER BALANCE AMONG INTERNS

The temporary setback that arose from the withdrawal of Intern N^o 2 (*viz Mr. Mpokopelo Hlongwane*) actually turned out to be a blessing in that the partnership was able to address gender balance by appointing a female intern. The resulting gender balance for the internship program is 50% male and 50% female.

1.2.2.2 PLANTING AT ZASTRON (1 ½ Ha)

Whilst collaborating with specialists from Potato SA specialists and Glen College, Interns managed to mentor a farmer from the Zastron area of the Free State (*Mr. Otto Mbangula*) who consequently has planted 1½ ha of potatoes under irrigation. Your attention is drawn to the fact that the Interns actually drew up the business plan for the farmer and were actively involved in the planting. The Interns are busy with daily telephonic consultations with Mr. Mbangula coupled with weekly visits to Mr. Mbangula's potato field. Note that Zastron is approximately 250km from Glen where the Interns are stationed. It is envisaged that Mr. Mbangula will harvest his crop at the end of this year or early 2007.

1.2.2.3 PLANNING FOR PLANTING AT GLEN

During the period in question, Interns have collaborated with specialists from Potato SA specialists and Glen College when drawing up a business plan for the early January planting at Glen. The Interns will actually run this particular planting at which the Interns will take students (*form Glen College*) through all practical steps of potato production.

1.2.2.4 VISITING STAKEHOLDERS IN THE POTATO VALUE CHAIN

During the period in question, Interns have been afforded the opportunity to visit input suppliers and fast food outlets that predominantly serve potatoes. Interns also worked (*for approximately 15 days*) with a leading potato marketing agent (*Bloemfontein General Marketing Agency*) and were introduced to a leading potato inspector (*Mr. Koos Kruger*) at the Bloemfontein Fresh Produce Market.

1.2.2.5 GOODWILL OF THE PARTNERSHIP *via* THE INTERNSHIP PROGRAM

During the period in question, Interns had assisted in boosting the goodwill of the Potatoes SA–Glen College of Agriculture Training & Research Partnership via participation in a TV program called Living Land. The said program was recorded at many locations including the Bloemfontein Fresh Produce Market, a commercial farm in Bainsvlei near Bloemfontein and Glen College campus. Judging by the telephonic numerous enquiries that the college has been receiving after the screening of the said

TV shoot, one is compelled to state that registering to for potato production courses at Glen College of Agriculture was in the process actually sold out to the public.

1.2.2.6 FOUNDATIONS LAID FOR NEXT QUARTER (1ST OCTOBER TO 31ST DECEMBER 2006)

1.2.2.6.1 FOUNDATION 1 (VISITATION OF STAKEHOLDERS)

Your attention is drawn to the fact that a firm foundation has been laid that will ensure that Interns will (*in the next quarter*) visit and/or work with other role players in the potato value chain such as potato seed growers, small scale state funded projects in Jagersfontein, Jacobsdal and Sandvet.

1.2.2.6.2 FOUNDATION 2 (PLANTING AT GLEN)

Your attention is drawn to the fact that a firm foundation has been laid that will lead to Interns actually planting potatoes at Glen in January 2007. It is wise to reiterate that it is at this particular planting where the Interns will take students (*from Glen College*) through all practical steps of potato production. Note that this planting will further the other objectives of the partnership that are contemplated above under point 2.1.

1.2.2.6.3 FOUNDATION 3 (REPOSITIONING GLEN COLLEGE TRAINING MODUS OPERATION)

The Internship program has inspired the college management in attempting to exploit the practical training *niche* that the college is endowed with. The college management has in-fact requested the custodian of the college (*i.e. the Free State MEC for Agriculture*) to allow the college to drastically changes its training inclination to 100% practical.

The said suggestion will entail the halting of the intake of full time students at Glen in 2007 (*onwards*) in preference to collaborative registration of students, farmers and members of state funded projects who will be registered at Technikons, Universities and FET colleges for the theory provision and will later register at Glen for the mandatory 1 year practical session. Should permission be granted, future Interns under the Potato SA/ Glen College Partnership will then be drawn from the new kind of student who will be attending the 100% Proactive Appropriate Training (PAT) program at Glen College of Agriculture.

Glen College in this regard yearns to transform into a **Centre of Excellence that will run a Pro-Active Appropriate Training (PAT) program in 2007 onwards**. Progress in this regard will be featured in the next quarterly report.

1.2.2.7 REPORT ON SUCCESSFUL BUDGETARY EXPENDITURE FOR THE INTERNSHIP PROGRAM

Please view the attached table (*next page*) that elucidates the expenditure pattern from July 2006 and the projections for the coming quarter ending December 2006.

2.0 PROJECT IMPLEMENTATION FOR JANUARY 2007

2.1 PROJECT OBJECTIVES 2007

- To give first year students a good background on the Potato Industry in SA which includes: potato production, marketing and the structures within the industry
- To identify students who would like to “specialize” in potato production, marketing etc
- To identify students who will “manage / co-ordinate” the planting at Glen and other sites
- To identify, appoint and place “Project Co-ordinators” on an INTERNSHIP PROGRAM under mentorship of Glen
- To host a potato short courses for students, extension officers and emerging farmers on an annual basis

2.2 TARGET PRODUCTION AREA FOR 2007

The target production area was Jagersfontein for 2007 academic year.

2.2 BRIEF BACKGROUND OF JAGERSFONTEIN PROJECT

A group of 10 emerging women farmers are funded by the Department of Provincial and Local Government, the Kopanong Local Municipality and the National development Agency. The project is supplied with the most equipment needed for plant production. The farm is just outside Jagersfontein in the Free State Province. Although it is not a potato production area the ladies are vegetable farmers who planted potatoes in the past but with not much success. A Mr. De Wet Holtzhausen, the Headmaster of the Jagersfontein School, is also assisting them as a mentor appointed by the sponsors

2.3 PROGRESS REPORT FOR JAGERSFONTEIN PLANTING

2.3.1 Introduction

In January 2007 a one hectare planting was done under mentorship of the PSA / Glen interns.

2.3.2 Materials and Methods employed at Jagersfontein

PSA, with the help of the Interns, co-ordinate / oversee the total potato production process (from soil preparation, production to marketing), of a test planting. The process includes practical training through the whole production process. The Syngenta preventive spray program is in process. Soil samples were taken and fertilizer given as recommended.

2.3.4 Results for Jagersfontein

The Darius potato cultivar that was planted at Jagersfontein looked good throughout all growth stages. Lifting was done throughout winter. Selling of ± 25 tons of potatoes was done throughout winter, (in and around the Jagersfontein township of Itumeleleng) by the project members themselves. The ladies were allowed to keep proceeds of their harvest for re-investment in potato planting in the 2007 august planting

2.3.5 Conclusions and lessons for Jagersfontein

The ladies learned quickly and should be in a position to do future potato plantings with only a little assistance. It is hoped that the ladies will be financially disciplined enough to keep proceeds from the previous harvest for re-investment in the next crop whose planting is scheduled for August 2007.

PROJECT NAME: OPPERMANS MENTORSHIP
PROJECT MANAGER: Herman Haak
STARTING DATE: July 2007
FINISHING DATE: June 2010
WRITTEN BY: Etienne van der Walt (Mentor)

Short profile of the Oppermans setup;

The Opperman's property falls under the jurisdiction of the Opperman's Communal Property Association (OCPA) with its own constitution and Management committee. The property exists out of several thousand hectare grazing land that was restored to the original owners—The Oppermans. The OCPA is responsible for the allocation of land use under its jurisdiction etc.

The OCPA allocated +- 260 ha of grazing to each family living on the property to farm for their own benefit. The family members who could not be accommodated in the abovementioned allocation were asked to group together and each received 5 ha land that was suitable for irrigation. These 40 members formed a company—African Spirit—and then signed a 10year lease contract with the OCPA, hoping to obtain property rights before the lease expires. The company has already paid the necessary funds for surveying the area allocated to them.

African Spirit Trading 317

After the company was formed, negotiations with the Dept. of Agriculture were undertaken by the steering committee. These negotiations led to the Dept. Agriculture being willing and responsible for supplying the necessary centre pivot irrigation system in the form of 21 x 10ha pivots as well as the pump station and office block / workshop / store. The Orange Riet Water User's Association (ORWUA), under whose jurisdiction the supply of irrigation water falls, was willing to supply the necessary water rights for 200 ha, and to subsidize the water tariff on a sliding scale over a 5 year period, enabling African Spirit to establish itself. The ORWUA also formed an Advisory Committee with the Dept. of Agriculture.

The Advisory Committee, being of the opinion that the beneficiaries were in need of training and mentorship because they did not have any farming experience, decided to approach private enterprise to become involved.

This led to Potatoes SA and ABSA as well GWK Limited and some of the Commercial Irrigation Farmers forming part of the Advisory Committee.

The ORWUA, PSA and ABSA were also willing to bear the cost of paying the salary of a Mentor. Before the mentor could be appointed the first pivots were erected and the beneficiaries, being eager to start farming approached a neighbouring commercial farmer to help them plant potatoes. This led to the forming of a partnership, named Insig Ontwikkelingsvennootskap, on a 50/50 cost / profit basis, for a 5 year period.

The commercial farmer is responsible for all farming activities and makes his tractors and implements available at GWK tariffs. This will enable African Spirit to generate funds for production costs and acquiring their own equipment.

Beneficiaries have so far received training in Wheat production under leadership of Small Grain Institute, Farm management by Free State University, computer literacy by ARC, Tractor maintenance by GSA, as well as SAFEX training. They are currently doing a series of training courses sponsored by the Dept. of Labour, after which they will begin specialized training in the field of welding, silo management and accounting as well as various other skills. African Spirit is also enabling their shareholders to qualify for their driver's license by supporting them financially to attend a driving school, after doing training for the learner's license.

The partnership planted 40 ha of seed and table potatoes, achieving 34ton/ha, and then planted 170 ha of wheat, harvesting 6.5 ton/ha., after sustaining some hail damage. The potato crop was followed by an early maize crop, reaped during April/ May 08 fetching 18.1 ton/ ha.

The wheat crop was followed by a December planting of late maize which produced 13 ton/ha during July 08 and a 30 ha potato crop being harvested at the time of writing. The estimate for the seed/table potatoes is +- 54 ton/ha. Production of seed sunflower under contract to a seed company also took place this year, but the net return has not yet been confirmed. The partnership has decided on a no till policy, considering the cost of fuel and the fact that no implements have so far been acquired, as well as to maintain and improve the soil carbon status.

The beneficiaries are presently more concerned with getting the necessary skills to enable them to farm on their own, once the partnership contract expires. This is the reason why the day to day running of the farm is left in the hands of the partner/management committee, who see each other 2-3 times during a week as well as having a partnership meeting once a month. The beneficiaries are paid a monthly dividend with which they can sustain their families and also get a % profit share after the partners have covered costs and divided profits. Management intends to build up reserve funds for future mechanization and production costs.

African Spirit is currently involved in negotiations with Free State University

Some of its members will do soil salinity measurements for commercial irrigation farmers, while the University will do all recommendations for restoring the correct salinity levels.

This development is also seen as a further step in empowering the shareholders of African Spirit.

Training program	Date	No. of attendants
Potato farmer's day	Aug 2007	3 directors attended
Fencing	Sept 2007	13
UV Farm Management	Sept 2007	14
Visit Rascal & WV Moerkwekers	Sept 2007	3
No Till Farmer's day	Sept 2007	14
Meeting Agendas	Oct 2007	6
Crop budgeting	Oct 2007	5
Cost codification	Oct 2007	5
GSA tractor maintenance	Nov 2007	20

Labour law	Nov 2007	35
Potato Green Tour Farmers' day	Nov 2007	3
Petty cash training	Nov 2007	3
Safex Training (GWK)	Jan 2008	27
ARC Computer training-Ongoing	Ongoing	8
ARC SGI- wheat production	Feb 2008	25
ABET reading & writing-Ongoing	Ongoing	2
Petty Cash Training	March 2008	11
OVCASA chemical training	March 2008	13
Bookkeeping A	March 2008	20
First Aid Group B	March 2008	20
Occupational Health/Safety Training Group B	March 2008	20
Fencing Group B	March 2008	20
Business Skills Group A	March 2008	20
Human Resources Man. Group A	April 2008	20
Diversity Management Group A	April 2008	20
Weed, Foliage/Pest Control Group B	March 2008	20
Pipe laying/Maintenance Group A	April 2008	19
Crop planting/Management Group B	April 2008	19
Bookkeeping Group B	April/May 2008	10
First Aid group A	April 2008	18
Occupational Health/Safety Training Group A	May 2008	10
Fencing Group A	May 2008	12
Business Skills Group B	May 2008	13
Wed, Foliage/Pest Control Group A	May 2008	20
Human Resources Man. Group B	May/June 2008	10
Pipe laying/ maintenance Group B	May/June 2008	20
Diversity Management Group B	June 2008	20
Crop Planting and Man. Group A	June 2008	20
Potato harvesting by trainees	Mid June - Mid Aug	All
Fertilizer Course Group A & B	Sept 2008	32
Cultivation of Potatoes Group A & B	Sept 2008	40
Business Law Group A & B	Sept 2008	30

Training will continue until December 2008, and will resume in January 2009. It will, however, be more practical in that we want the trainees to start applying what they have learned, and be more involved with the planting and management of their farming business.

PROJECT NAME: GOLDFIELDS CULTIVAR TRIAL & TRAINING
PROJECT MANAGER: Attie van den Bergh, Potatoes South Africa
STARTING DATE: June 2007
END DATE: July 2008
COMPILED: Livhu

SUMMARY

The project is situated at a Further Education and Training College in Welkom, it was decided that it will be centre of all projects around including Sandvet and Jagersfontein. In the campus, potato production forms part of the curriculum for all horticultural crops.

OBJECTIVES 2006/2007

- To give first year students a good background on the potato industry in South Africa
- To train local farmers on potato production aspects.

PROGRESS REPORT

Introduction

About a hectare was planted on the 13th of January 2008 with the assistance of the students from the college who were actually taking part in their practical training.

Materials and Methods

Two interns from Glen, Sylvester and Lebogang as well as workplace employee, Jeanet, were part of the management of the project under Attie. They assisted the Goldfields students with all the recommendations and best practices to be followed when planting potatoes.

Results

Unfortunately, by around March, the crop was killed by heavy frost that affected the area.

Conclusions and lessons

It was a good opportunity afforded to the PSA interns and workplace employee to supervise other up coming agriculturists to plant potatoes and it is recommended that they form part of the project management team from planning, soil preparations, ordering until marketing.

PROJECT NAME: MALUTI- DEMO TRIAL AND TRAINING
PROJECT MANAGER: Attie
STARTING DATE: June 2006
END DATE: July 2011
WRITTEN BY: Livhu

SUMMARY

Maluti FET college project started in the 2006 financial year with an undertaking that Potatoes South Africa' financial contribution will be on a sliding scale annually to enable the institution to be able to produce and run the potato program on its own. Planting has been done annually at a local agriculture since then and learnership students were exposed to potato production.

OBJECTIVES 2007/2008

- To plant a demonstration trial every year to expose learnership students to various potato growth stages.
- Practical demonstration of potato planting, harvesting, grading, packaging etc.

PROGRESS REPORT

Introduction

A total of 2 hectares was planted at the agricultural school with under the supervision of the farm manager appointed by the school.

Materials and Methods

Potatoes South Africa provided seed, chemicals and fertilizers. The college provided mechanization labour and water. The cultivars planted were Rodeo and Platina, around 1ha each.

Results

A total of 1008 10kg bags were harvested per hectare, resulting in some 10 tons per hectare. Irrigation was disrupted due to a broken machine and government took long to repair it. Potato tuber moth was the main pest that gave problems. Harvesting was also delayed due to funds being used for something else by the college

Conclusions, lessons learned and recommendations

It is imperative that, for PSA's goal to be achieved, a memorandum of understanding be signed between the two parties to avoid the college channelling potato funds to other school projects. In this way, potato production in the college will be self-sustainable and our goal achieved. An information day be held after harvest, involving all local farmers

PROJECT NAME: CULTIVAR TRIAL AND TRAINING -TSOLO
STARTING DATE: July 2005
FINISHING DATE: June 2010
IMPLEMENTATION AGENT: Shiels Management Services

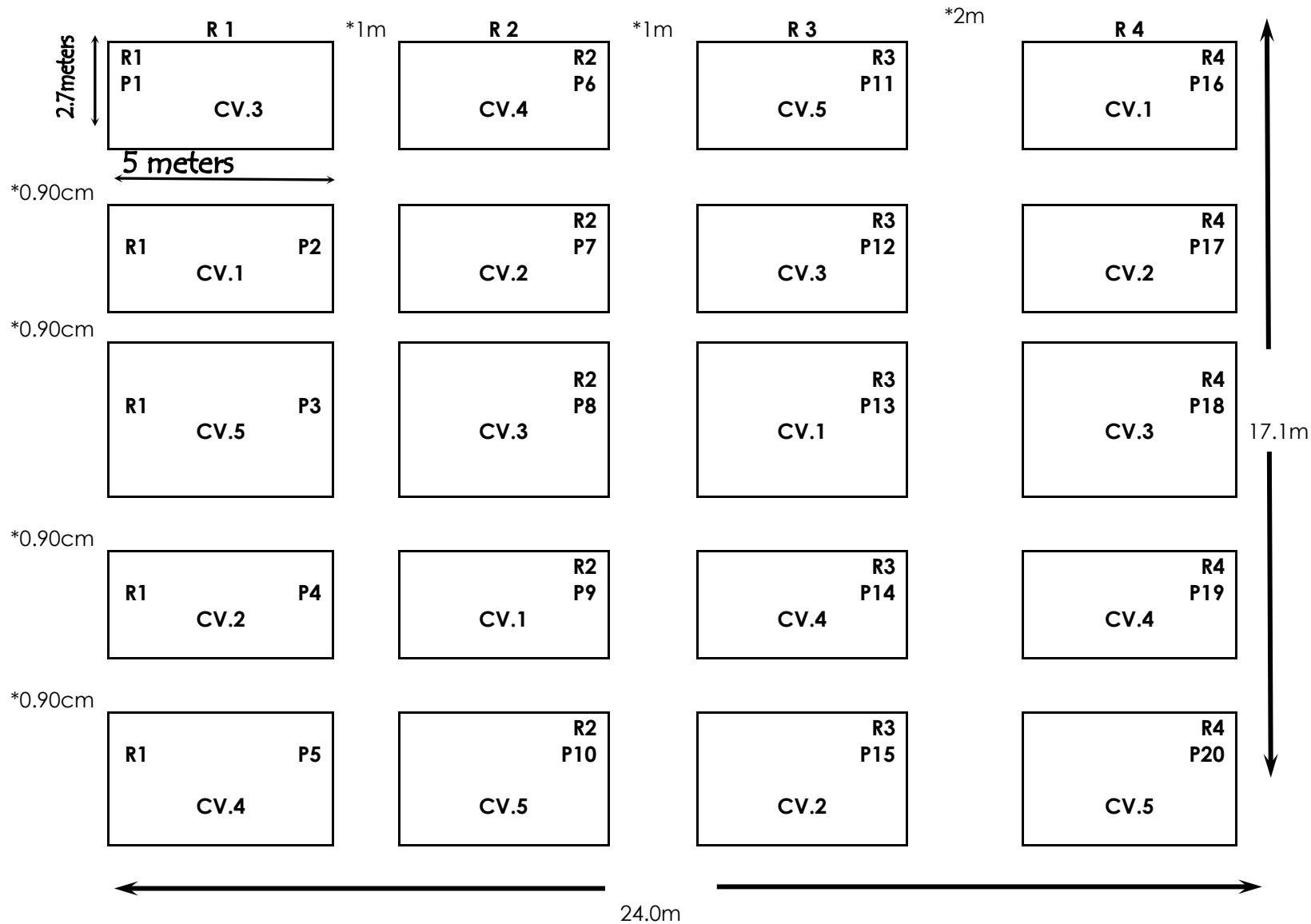
OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

SUMMARY OF PROJECT PROCEDURES

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds.

**Potato Cultivar Project
Field Plan**



Key

- CV = Cultivar
- R = Replicate
- P = Plot
- * = Pathway

Plot size

Length = 10mts
width = 2.7mts =
4 rows @ .90cm
apart Tuber Spacing
30cm apart

Cultivars = 5

CV.1.Calibra
CV.2.Astrid
CV.3.BP-1

CV.4.Ronn
CV.5.Mnandi

Rep 1 + Rep 2 +Rep
3

will be sprayed

Rep 4 will be
unsprayed

Two weeks later the land was ploughed and disked and on the day of planting the furrows were opened by tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 09 October 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Calibra, Astrid, BP1, Ronn and Mnandi. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of MAP at the rate of 100kg/ha and KCL (Potassium) at 200kg/ha was applied at planting.

Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing with LAN at a rate of 500kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane M45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

The following data was recorded:

Growing period: (1) 75% plant emergence
 (2) 75% foliage die-back

Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm). Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour. Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Bligh	Early Bligh	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance	Flesh colour	R1 T/Ha	R2 T/Ha	R3 T/Ha	R4 T/Ha
		R1	R2	R3	R4																	
CALIBRA	02/11/0	27	26	29	32	3	4	4	05/03/	2	4	3	4	5	5	5	2	3	08.0	05.0	06.0	05.0
ASTRID	30/10/0	27	21	21	23	3	4	4	05/03/	3	3	2	5	5	5	5	2	2	09.0	09.50	12.0	06.0
BP 1	30/10/0	33	34	33	34	4	3	3	05/03/	3	3	3	3	4	5	5	2	3	18.0	07.0	07.0	09.0
RONN	02/11/0	28	25	30	25	3	4	3	05/03/	2	3	3	4	5	5	5	2	2	06.0	14.0	06.0	07.0
MNAND	30/10/0	34	33	31	32	4	4	4	05/03/	3	3	3	3	5	5	5	2	2	14.5	13.0	15.0	12.0

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot , Secondary growth and Hallow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour :

KEY: 4 = White
 3 = Cream
 2 = Light Yellow
 1 = Dark Yellow

Tuber shape :

KEY: 4 = Round
 3 = Oval
 2 = Long-oval
 1 = Long

Eye depth :

KEY: 3 = Shallow
 2 = Intermediate
 1 = Deep

Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

The Charts below illustrate the yields of Potato cultivars evaluated at Tsolo, Treated and untreated with Insecticides and Fungicides.

Chart. 1

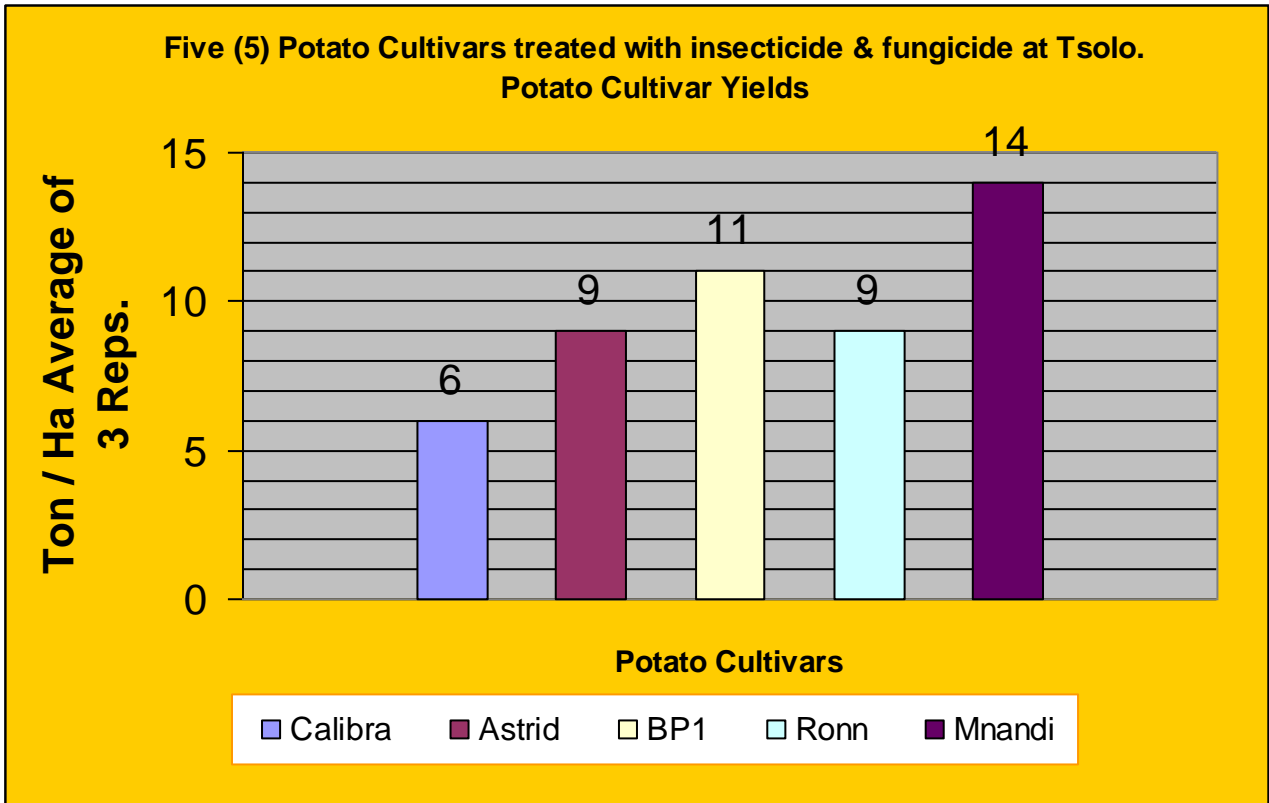
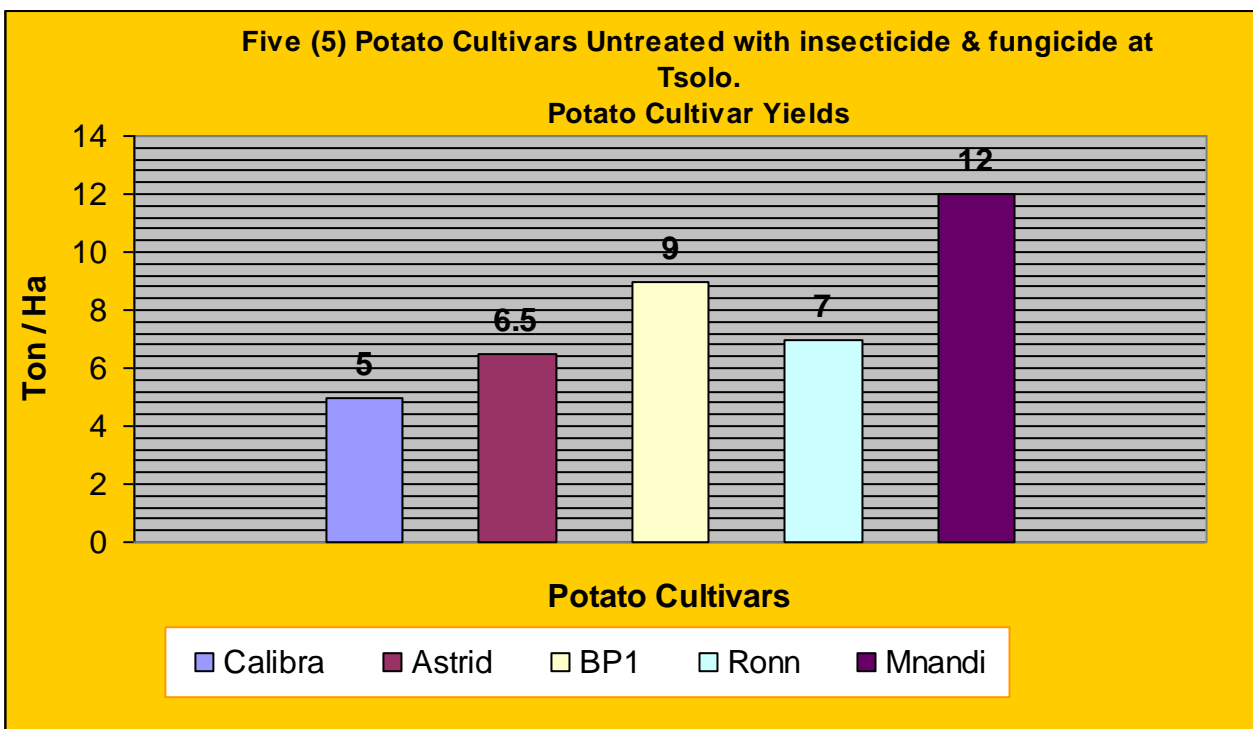


Chart. 2



Conclusion

The project at Tsolo was planted and not irrigated. These are the average yields Mnandi (14 ton/Ha) followed by BP.1 (11.0 Ton/Ha) then Astrid (9 Ton/Ha), Ronn (9.0 Ton/Ha) and Calibra (6.0 Ton/ Ha). The results have shown that potatoes are not profitable under dry land conditions, unless grown for self use.

Lessons Learnt

- 1.) Poor management skills.
- 2.) The lack of irrigation.
- 3.) Low yields due to no irrigation.

Due to no irrigation the Tsolo project yields were very poor.

The management of Tsolo, department of agriculture has sorted out the irrigation problem and has promised that this coming season we will have a better potato crop.

PROJECT NAME: CULTIVAR TRIAL AND TRAINING- NGCOBO
STARTING DATE: July 2006
FINISHING DATE: June 2010
IMPLEMENTATION AGENT: Shiels Management Services

OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

SUMMARY OF PROJECT PROCEDURES

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds.

Two weeks later the land was ploughed and disced and on the day of planting the farrows were opened by tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 10 October 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Calibra, Astrid, BP1, Ronn and Mnandi. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of MAP at the rate of 400kg/ha and KCL (Potassium) at 680kg/ha was applied at planting.

Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing with LAN at a rate of 700kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane M45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

The following data was recorded:

Growing period: (1) 75% plant emergence
 (2) 75% foliage die-back

Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm).

Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour.

Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Bligh	Early Bligh	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance	Flesh colour	R1 T/Ha	R2 T/Ha	R3 T/Ha	R4 T/Ha
		R1	R2	R3	R4																	
CALIBRA	25/10/0	31	33	33	32	3	4	4	04/03/	4	4	3	4	4	5	5	2	3	27.0	29.0	23.0	11.0
ASTRID	22/10/0	32	34	34	29	4	5	3	04/03/	5	3	2	5	5	5	5	2	2	42.0	30.0	33.0	35.0
BP 1	20/10/0	32	34	34	32	4	4	3	04/03/	4	3	3	4	4	5	5	2	3	28.0	41.0	40.0	29.0
RONN	20/10/0	34	34	34	33	4	5	3	04/03/	4	3	3	4	5	5	5	2	2	36.0	39.0	41.0	28.0
MNAND	24/10/0	34	31	33	32	3	5	4	04/03/	5	3	3	5	4	5	5	2	2	48.0	41.0	44.0	40.0

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot, Secondary growth and Hollow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour:

KEY: 4 = White
 3 = Cream
 2 = Light Yellow
 1 = Dark Yellow

Tuber shape:

KEY: 4 = Round
 3 = Oval
 2 = Long-oval
 1 = Long

Eye depth:

KEY: 3 = Shallow
 2 = Intermediate
 1 = Deep

Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

The Charts below illustrate the yields of Potato cultivars evaluated at Ngcobo, Treated and untreated with Insecticides and Fungicides.

Chart. 1

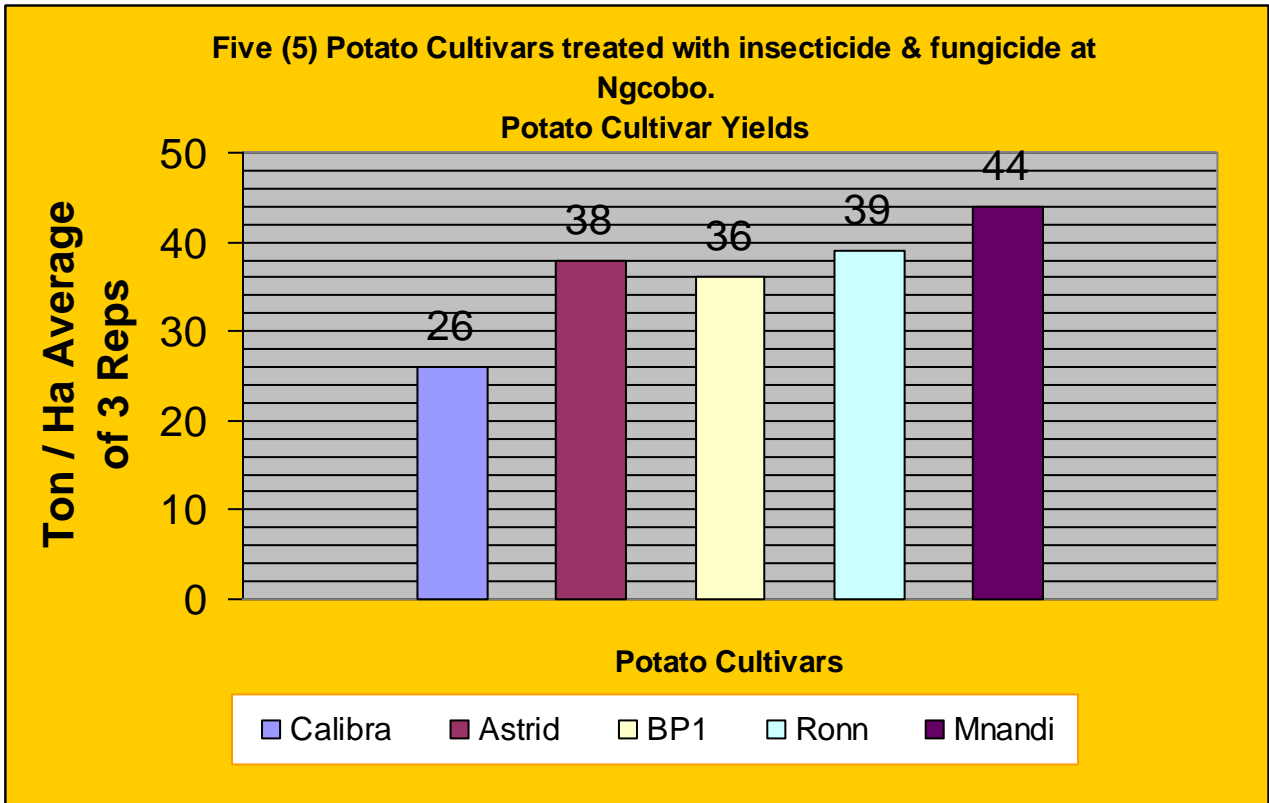
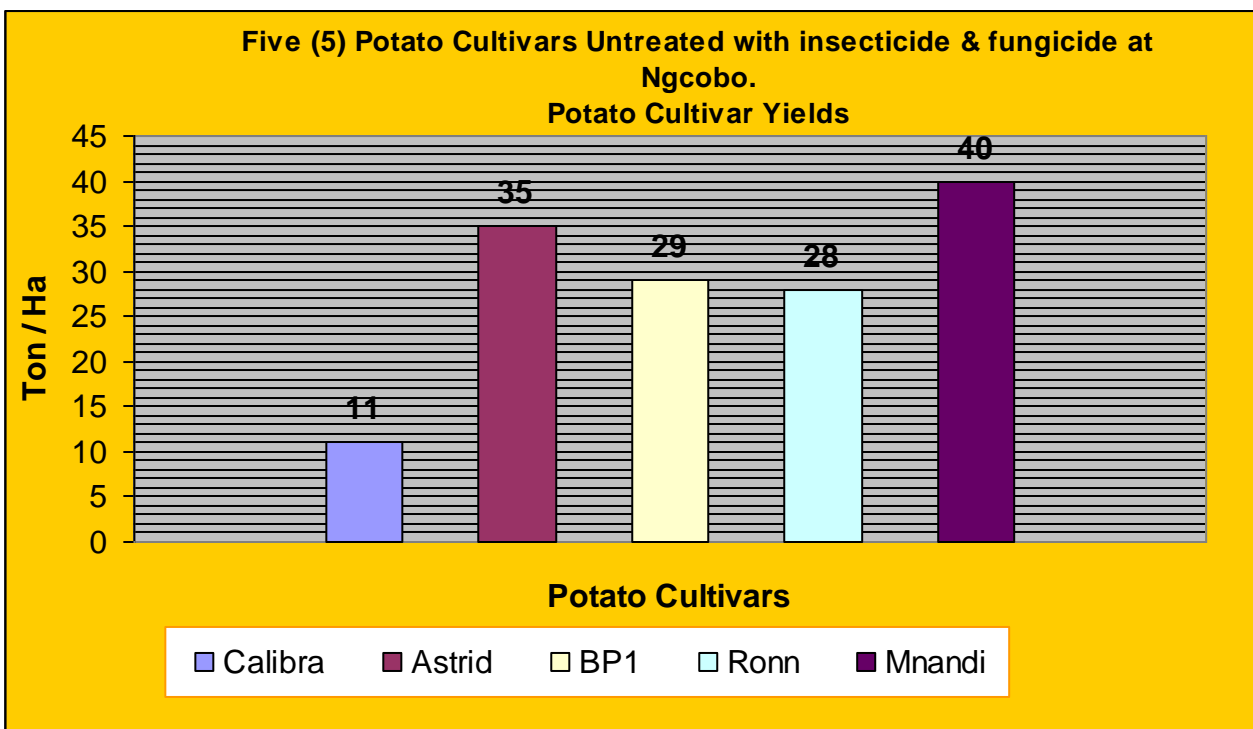


Chart. 2



Conclusion

The project at Ngcobo was planted and irrigated. These are the average yields Mnandi (44 ton/Ha) followed by Ronn (39 Ton/Ha) then Astrid (38 Ton/Ha), BP.1 (36 Ton/Ha) and Calibra (26 Ton/ Ha). The results have shown that potatoes can be grown at Ngcobo under irrigation.

Lessons Learnt

- 1.) The lack of management skills.
- 2.) The importance of irrigation scheduling, a lot of malformation was noticed, due to moisture stress.
- 3.) The importance of choosing the right site, because the Ngcobo site belongs to a single person.
- 4.) The lack of knowledge on drainage, part of the land was water logged.
- 5.) The lack of knowledge, of chemicals to control weeds and disease.

Due to the high rainfall at Ngcobo part of the project was water logged and because of the water logging, a lot of tubers were rotting. The yields at Ngcobo were average, but can do better under good management.

PROJECT NAME: CULTIVAR TRIAL AND TRAINING- PORT ST JOHNS
STARTING DATE: July 2006
FINISHING DATE: June 2010
IMPLEMENTATION AGENT: Shiels Management Services
WRITTEN BY: Morgan Naidoo

OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

Summary of Project Procedures

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds. Two weeks later the land was ploughed and

disced and on the day of planting the farrows were opened with a potato ridger using a tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 08 May 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Astrid, BP1, UTD, Mnandi and Ronn. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of DAP at the rate of 450kg/ha and KCL at 1100 kg/ha was applied at planting.

Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing (LAN at a rate of 550kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane m45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

The following data was recorded:

Growing period: (1) 75% plant emergence
 (2) 75% foliage die-back

Number of plants after emergence for each replicate.

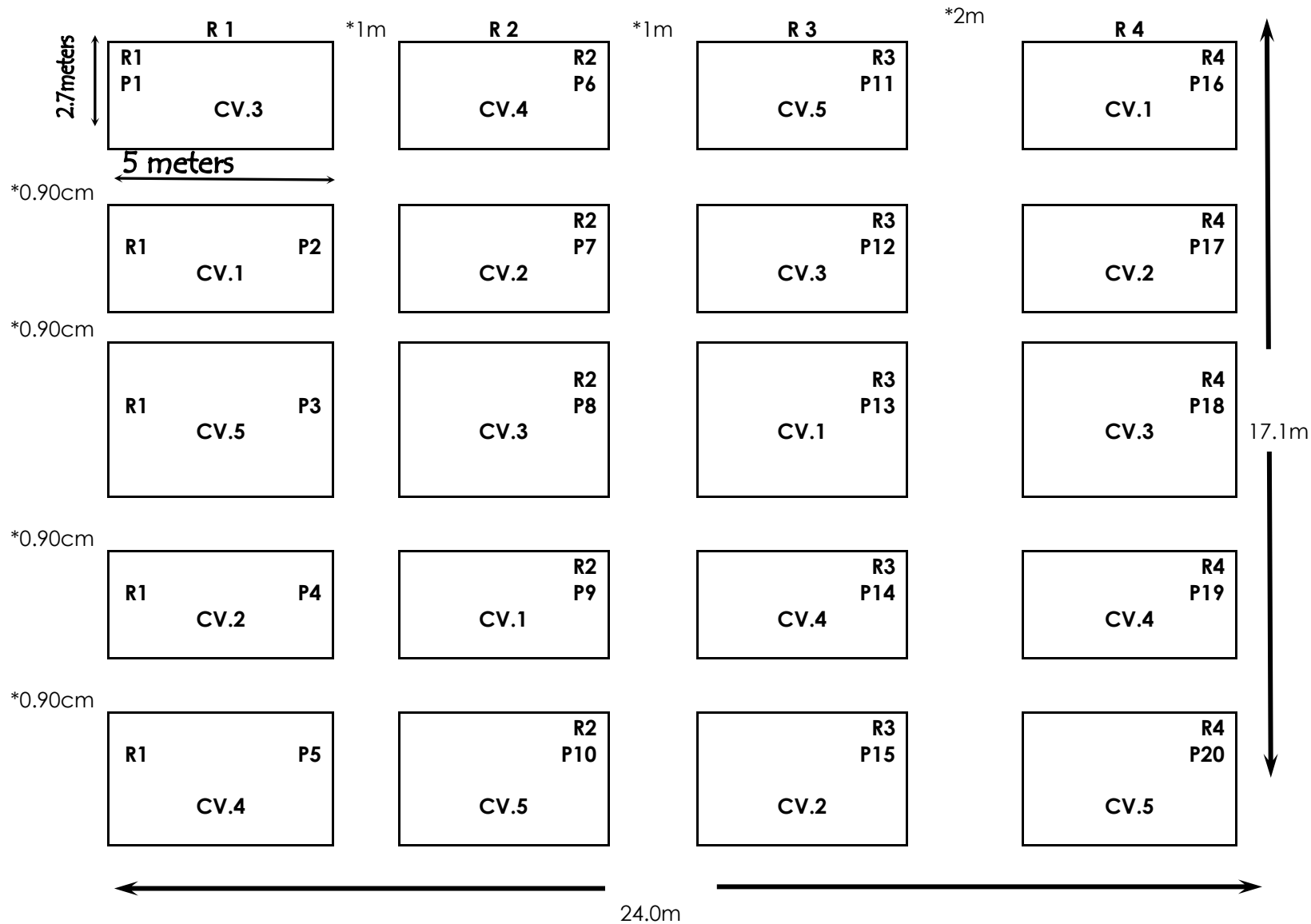
Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm).

Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour.

Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

**Potato Cultivar Project
Field Plan**



Key

- CV = Cultivar
- R = Replicate
- P = Plot
- * = Pathway

Plot size

Length = 10mts
width = 2.7mts =
4 rows @ .90cm
apart Tuber Spacing
30cm apart

Cultivars = 5

CV.1.Mnandi
CV.2.UTD CV.3.BP-1

CV.4.Ronn
CV.5.Astrid

Rep 1 + Rep 2 +Rep 3

will be sprayed

Rep 4 will be
unsprayed

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Bligh	Early Bligh	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance	Flesh colour	R1 T/Ha	R2 T/Ha	R3 T/Ha	R4 T/Ha
		R1	R2	R3	R4																	
Mnandi	08/06/0	34	34	34	33	5	5	5	17/10/	5	3	3	5	5	5	5	2	2	16.0	23.0	18.0	21.0
UTD	22/05/0	32	33	32	32	4	5	4	17/10/	5	3	3	5	5	5	5	2	3	12.0	10.0	7.5	7.3
BP 1	25/05/0	32	33	32	31	4	5	4	17/10/	5	3	3	5	4	5	5	2	3	12.0	13.0	11.0	11.6
Ronn	29/05/0	34	34	34	33	5	5	5	17/10/	5	4	3	5	5	5	5	2	2	23.0	17.0	17.6	24.5
Astrid	04/06/0	34	34	34	34	5	5	5	17/10/	5	3	3	5	5	5	5	2	2	22.0	20.0	18.0	30.5

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot, Secondary growth and Hollow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour:

KEY: 4 = White
 3 = Cream
 2 = Light Yellow
 1 = Dark Yellow

Tuber shape:

KEY: 4 = Round
 3 = Oval
 2 = Long-oval
 1 = Long

Eye depth:

KEY: 3 = Shallow
 2 = Intermediate
 1 = Deep

Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

Conclusion

The project at Port St Johns was not well managed and irrigated. These are the average yields Astrid (20 Ton/Ha), followed by Mhandi (19 ton/Ha) and Ronn (19 Ton/Ha) then BP 1 (12 Ton/ Ha), and UTD (9.8 Ton/Ha). The results have shown that the medium and long season cultivars did not grow to its full term due to the shortage of water. The project will be continued and evaluated after a three year period.

The yields of these projects are very poor; the committee has not managed the project very well during the season. The Port St Johns farmers are very keen in growing potato even though they have seen the poor yields of the potatoes but knowing what was the reason. Lima has dismissed their representative for the area because of his lack of commitment towards the project, and has been replaced by a new person who has promised us that the project will be moved to a new site with better management from him the potato committee.

PROJECT NAME:	COMMITTEE MEETINGS (EASTERN CAPE)
PROJECT MANAGER:	Livhuwani Ngwekhulu
STARTING DATE:	January 2007
FINISHING DATE:	JUNE 2010
WRITTEN BY:	Livhuwani Ngwekhulu

SUMMARY

There is only one committee that has been set up so far in the Eastern Cape, in OR Tambo municipality based in Mthatha. Other committees are still going to be set up based on the need.

OBJECTIVES 2007/2008

- Create a platform for the coordination of small scale farmers activities where there is a high number of farmers
- Functional committees that coordinate small scale and emerging farmers' affairs in their production region.

PROGRESS REPORT

Introduction

Potatoes South Africa functions properly with well-functional structures on the ground, representing farmers. Committees have been established where potatoes are grown in the country to function as a mouthpiece for farmers. Eastern Cape comes second to KZN as far as small scale producers are concerned and committees are going to be set up soon.

Materials and Methods

The committee comprises of, but is not limited to 5 members where the chairperson must plant at least 5ha. The committee is made of potato farmers who represent potato farmers in the region. The regional chairpersons will thereafter become part of the provincial committee in the Eastern Cape.

Provincial chairpersons will sit in the PSA National Developing Farmers Committee. Mr. Mateza has been appointed the chairperson of the committee in the OR Tambo District Municipality.

Results

As in KZN these committees are helping us in the planning of trials that we are running in the Eastern Cape, collection of farmer's database etc.

Conclusions and lessons

This is no doubt the way to maintain touch with farmers on the ground; much is still to be learnt as far as the Eastern Cape committees are concerned. Unlike in KZN where Sylvester is helping with the ground committee work, there is no one in the Eastern Cape and therefore the region needs more attention.

PROJECT TITLE: CULTIVAR TRIAL AND TRAINING- MTUBATUBA
STARTING DATE: July 2006
FINISHING DATE: June 2010
IMPLEMENTATION AGENT: Shiels Management Services

OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

SUMMARY OF PROJECT PROCEDURES

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds. Two weeks later the land was ploughed and disced and on the day of planting the furrows were opened with a potato ridger using a tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 03 May 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Astrid, BP1, UTD, Mnandi and Ronn. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of DAP at the rate of 750kg/ha and KCL 390kg/ha and was applied at planting. Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing (LAN at a rate of 375kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane m45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

The following data was recorded:

Growing period: (1) 75% plant emergence
(2) 75% foliage die-back

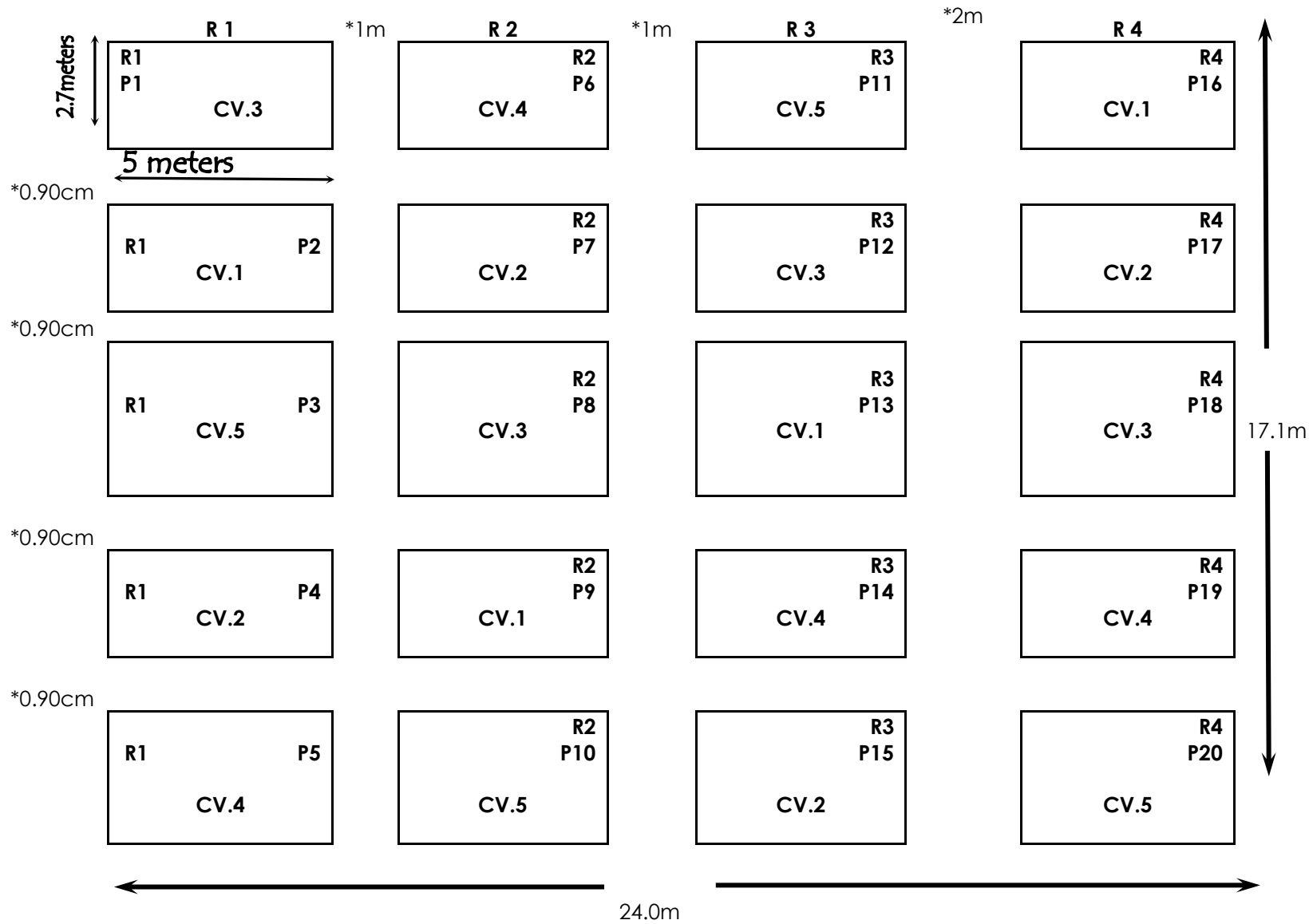
Number of plants after emergence for each replicate.

Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm).

Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour. Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

**Potato Cultivar Project
Field Plan**



Key

- CV = Cultivar
- R = Replicate
- P = Plot
- * = Pathway

Plot size

Length = 10mts
width = 2.7mts =
4 rows @ .90cm
apart Tuber Spacing
30cm apart

Cultivars = 5

CV.1.Mnandi
CV.2.UTD CV.3.BP-1

CV.4.Ronn
CV.5.Astrid

Rep 1 + Rep 2 +Rep 3

will be sprayed

Rep 4 will be unsprayed

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Blight	Early Blight	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance
		R1	R2	R3	R4												
Mnandi	16/05/08	34	31	34	31	3	5	5	26/09/08	4	3	3	5	5	5	5	2
UTD	16/05/08	32	34	32	32	4	5	4	26/09/08	4	3	3	5	5	5	5	2
BP 1	14/05/08	34	34	34	33	4	5	4	26/09/08	4	3	3	5	5	5	5	2
Ronn	16/05/08	34	33	34	31	4	5	5	26/09/08	4	4	3	5	5	5	5	2
Astrid	20/05/08	32	33	30	25	3	5	5	26/09/08	4	3	3	5	5	5	5	2

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot, Secondary growth and Hollow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour:
depth:

Tuber shape:

Eye

KEY: 4 = White
3 = Cream

Intermediate
2 = Light Yellow
1 = Dark Yellow

KEY: 4 = Round
3 = Oval

2 = Long-oval
1 = Long

KEY: 3 = Shallow
2 =

1 = Deep

Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

The project at Mtubatuba was planted and irrigated. The project was not irrigated enough due to shortage of water. If it had its full irrigation schedule, the yield would have doubled. These are the average yields BP 1 (26 Ton/ Ha) followed by Ronn (23 Ton/Ha), then UTD (20 Ton/Ha), Mnandi (20 ton/Ha), and Astrid (18.5 Ton/Ha). The results have shown that the medium and long season cultivars did not grow to its full term due to the shortage of water. The project will be continued and evaluated after a three year period.

Conclusion

This project will be moved to a new site in the following season. The people that are appointed on the committee need to be people that are well known by the community as well as people that are committed and within a radius of 50km from the area. Due to this the yields of these projects are very low these problems have shown that this season was a learning curve for the committee members and the farmers. The Matubatuba farmers are very keen in growing potato, and they do grow quite a large sum of potato at present.

PROJECT NAME: CULTIVAR TRIAL AND TRAINING- IXOPO
STARTING DATE: July 2007
FINISHING DATE: June 2008
IMPLEMENTATION AGENT: Shiels Management Services

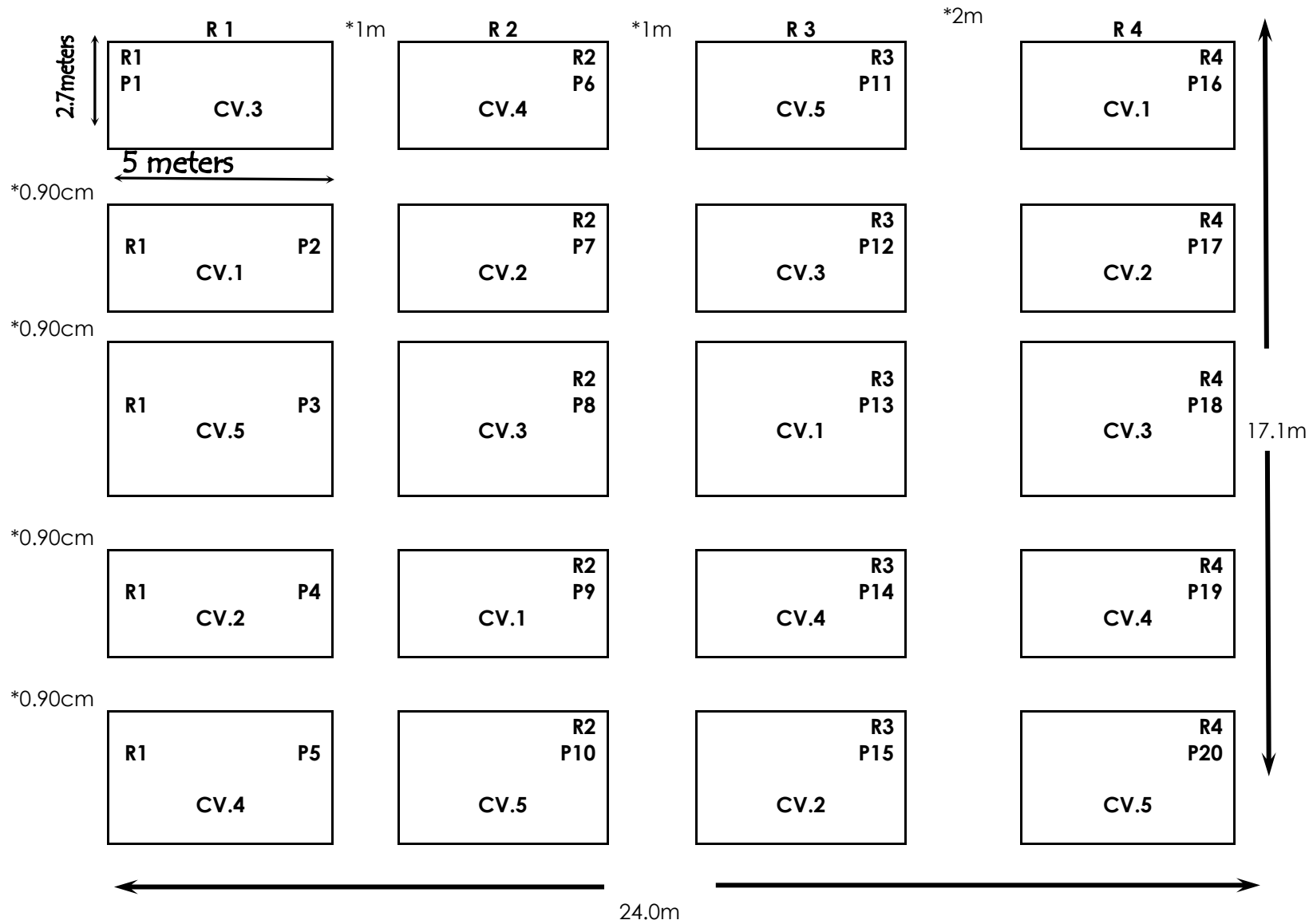
OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

SUMMARY OF PROJECT PROCEDURES

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds.

**Potato Cultivar Project
Field Plan**



Key

- CV = Cultivar
- R = Replicate
- P = Plot
- * = Pathway

Plot size

Length = 10mts
width = 2.7mts =
4 rows @ .90cm
apart Tuber Spacing
30cm apart

Cultivars = 5

CV.1.Calibra
CV.2.Astrid
CV.3.BP-1

CV.4.Ronn
CV.5.Mnandi

Rep 1 + Rep 2 +Rep
3

will be sprayed

Rep 4 will be
unsprayed

Two weeks later the land was ploughed and disced and on the day of planting the farrows were opened by tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 10 September 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Calibra, Astrid, BP1, Ronn and Mnandi. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of DAP at the rate of 400kg/ha and KCL (Potassium) at 670kg/ha was applied at planting.

Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing with LAN at a rate of 600kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane M45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

The following data was recorded:

Growing period: (1) 75% plant emergence
 (2) 75% foliage die-back

Number of plants after emergence for each replicate

Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm).

Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour.

Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Bligh	Early Bligh	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance	Flesh colour	R1 T/Ha	R2 T/Ha	R3 T/Ha	R4 T/Ha
		R1	R2	R3	R4																	
CALIBRA	25/09/0	34	33	34	31	4	5	4	28/01/	5	4	3	4	5	5	5	2	3	25.0	21.0	29.0	42.0
ASTRID	25/09/0	34	34	33	34	4	5	5	28/01/	5	3	3	5	5	5	5	2	2	38.0	42.0	41.0	37.0
BP 1	25/09/0	34	32	34	31	4	4	3	14/01/	5	3	3	4	5	5	5	2	3	31.0	26.5	28.0	23.0
RONN	25/09/0	33	34	33	34	4	5	3	24/01/	5	3	3	5	5	5	5	2	2	36.0	27.0	28.0	14.0
MNAND	25/09/0	34	34	34	34	4	5	5	28/01/	5	3	3	5	5	5	5	2	2	43.0	44.0	47.0	40.0

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot, Secondary growth and Hollow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour:

KEY: 4 = White
 3 = Cream
 2 = Light Yellow
 1 = Dark Yellow

Tuber shape:

KEY: 4 = Round
 3 = Oval
 2 = Long-oval
 1 = Long

Eye depth:

KEY: 3 = Shallow
 2 = Intermediate
 1 = Deep

Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

The Charts below illustrate the yields of Potato cultivars evaluated at Ixopo, Treated and untreated with Insecticides and Fungicides.

Chart. 1

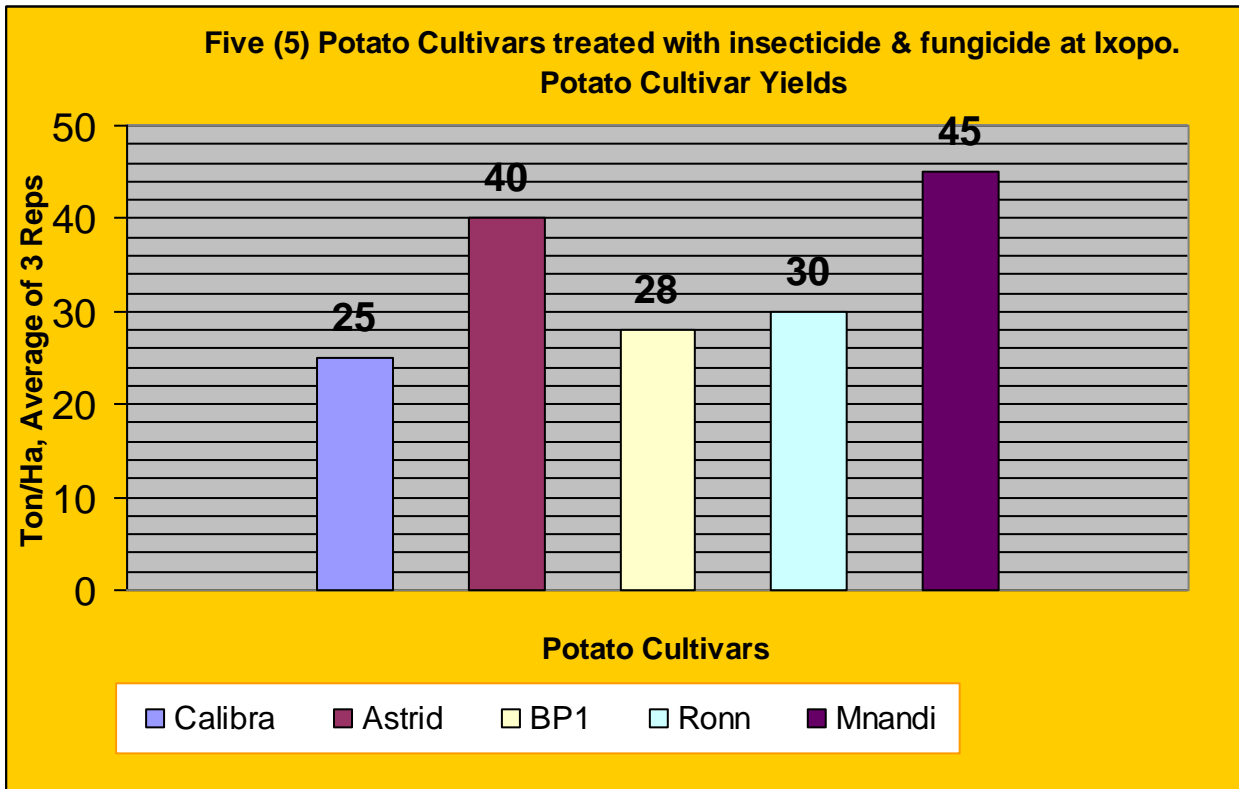
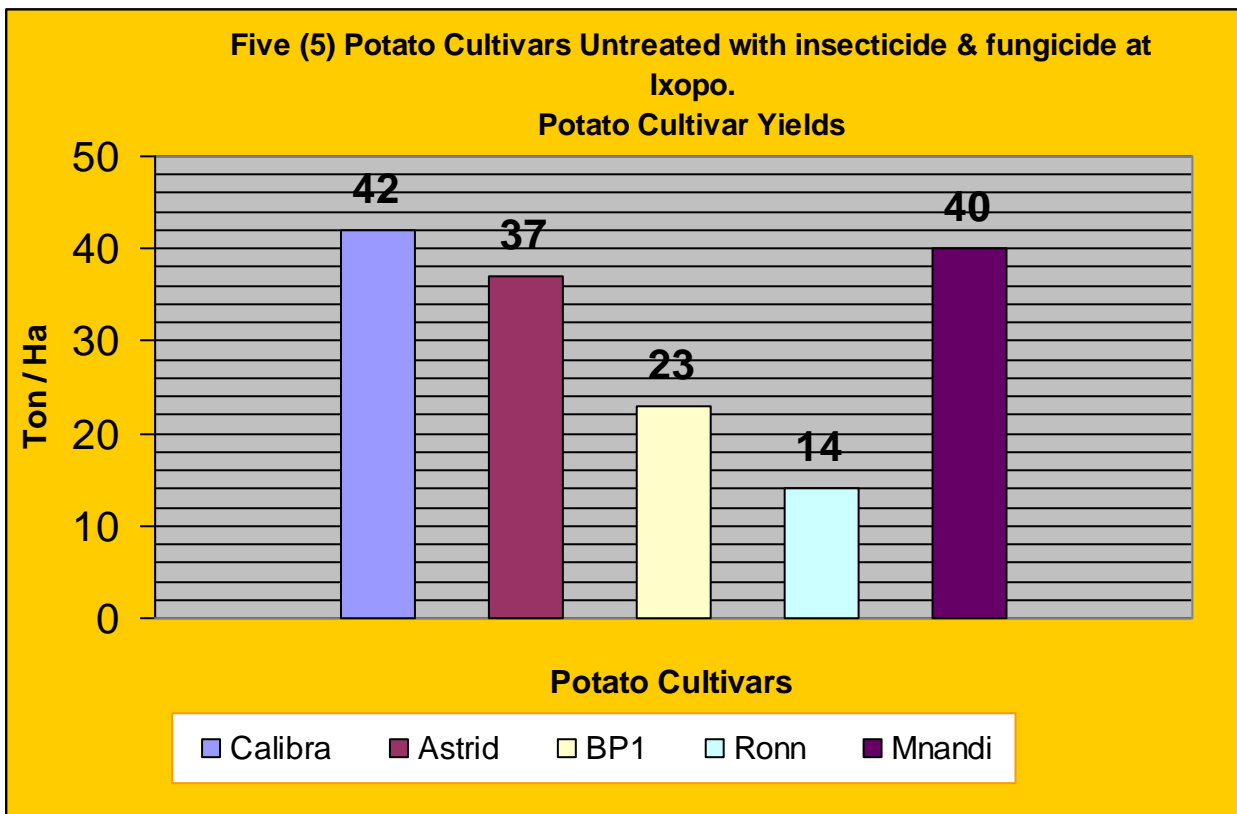


Chart. 2



The project at Ixopo was planted and irrigated. These are the average yields Mnandi (45 ton/Ha) followed by Astrid (40 Ton/Ha), then Ronn (30.0 Ton/Ha), BP.1 (28.0 Ton/Ha) and Calibra (25.0 Ton/ Ha). The results have shown that the long and medium season cultivars did grow to its full term due to good management.

Conclusion

Due to good management they have obtained good Potato yields of the project. The Ixopo farmers are very keen in growing potato, and with the help of Potato South Africa they are gaining more knowledge on potatoes which they are practicing themselves and obtaining better potato yield with better marketing practices.

Lessons Learnt

Working with small-scale farmers is difficult, because they lack management skills and they need to be monitored on a day to day basis, they also need to know the importance of irrigation when planting potato for profit and the losses that occur when planting under dry land conditions. Frequent visits to these potato projects will correct some of these problems and more community involvement and the committee that represents Potatoes South Africa. This project will be moved to a new site in the following season. The people that are appointed on the committee need to be people that are well known by the community as well as people that are committed and within a radius of 50km from the area.

PROJECT NAME: CULTIVAR TRIAL AND TRAINING- MKHUZE/BAYALA
STARTING DATE: July 2006
FINISHING DATE: June 2010
IMPLEMENTATION AGENT: Shiels Management Services

OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

Summary of Project Procedures

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds. Two weeks later the land was ploughed and disced and on the day of planting the furrows were opened with a potato ridger using a tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 02 May 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Astrid, BP1, Darius, Mondial and Ronn. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of DAP at the rate of 575kg/ha and was applied at planting. Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing (LAN at a rate of 500kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane m45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

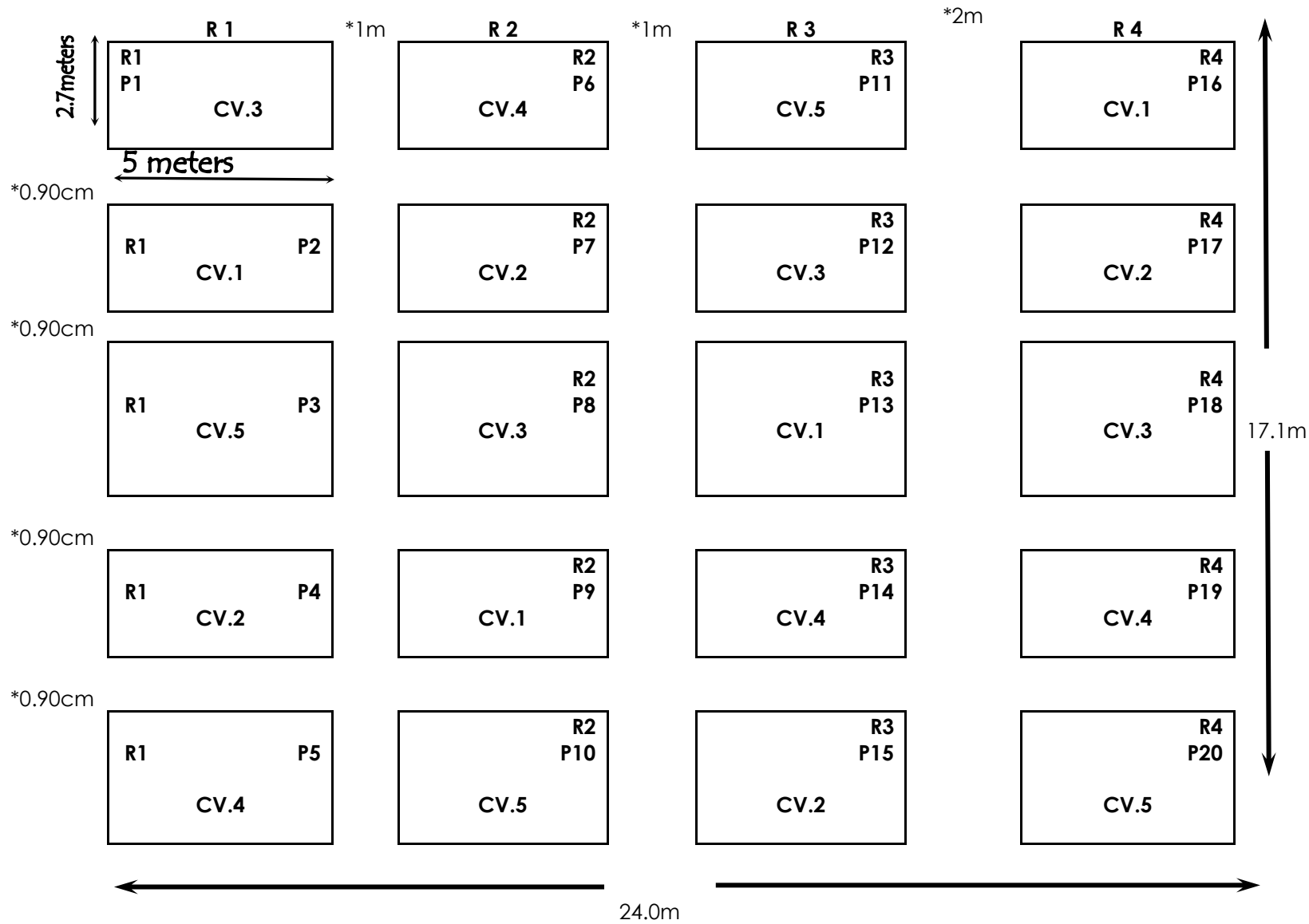
The following data was recorded:

Growing period: (1) 75% plant emergence
(2) 75% foliage die-back

Number of plants after emergence for each replicate. Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm). Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour. Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

**Potato Cultivar Project
Field Plan**



Key

- CV = Cultivar
- R = Replicate
- P = Plot
- * = Pathway

Plot size

Length = 10mts
width = 2.7mts =
4 rows @ .90cm
apart Tuber Spacing
30cm apart

Cultivars = 5

CV.1.Mondial
CV.2.Darius
CV.3.BP-1

CV.4.Ronn
CV.5.Astrid

Rep 1 + Rep 2 +Rep
3

will be sprayed

Rep 4 will be
unsprayed

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Bligh	Early Bligh	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance	Flesh colour	R1 T/Ha	R2 T/Ha	R3 T/Ha	R4 T/Ha
		R1	R2	R3	R4																	
Mondia	17/05/0	34	32	34	34	5	5	5	24/09/	5	2	3	5	5	5	5	2	3	14.0	17.0	14.0	14.0
Darius	20/05/0	33	32	33	33	5	5	4	24/09/	5	4	3	5	5	5	5	2	1	12.0	13.0	17.0	10.0
BP 1	15/05/0	34	34	34	34	4	5	4	24/09/	5	3	3	5	5	5	5	2	3	16.0	18.0	15.0	15.0
Ronn	20/05/0	34	34	34	30	4	5	4	24/09/	5	4	3	5	5	5	5	2	3	20.0	18.0	14.6	13.0
Astrid	22/05/0	25	25	34	30	5	5	5	24/09/	4	3	3	5	5	5	5	2	2	11.0	11.0	13.0	9.0

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot, Secondary growth and Hollow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour:

KEY: 4 = White
 3 = Cream
 2 = Light Yellow
 1 = Dark Yellow

Tuber shape:

KEY: 4 = Round
 3 = Oval
 2 = Long-oval
 1 = Long

Eye depth:

KEY: 3 = Shallow
 2 = Intermediate
 1 = Deep

Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

Conclusion

The project at Mkuzi was planted and irrigated by hand. The project was not irrigated enough because they used a watering can. If it had its full irrigation schedule, the yield would have doubled, BP 1 (17 Ton/ Ha) followed by Darius (14 Ton/Ha) then Mondial (15 ton/Ha), Astrid (11.5 Ton/Ha), Ronn (17 Ton/Ha). The results have shown that the medium and long season cultivars did not grow to its full term due to the shortage of water. The project will be continued and evaluated after a three year period.

PROJECT NAME: CULTIVAR TRIAL AND TRAINING- LOSKOP (ESTCOURT)
STARTING DATE: July 2006
FINISHING DATE: June 2010
IMPLEMENTATION AGENT: Shiels Management Services

OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

SUMMARY OF PROJECT PROCEDURES

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds. Two weeks later the land was ploughed and disced and on the day of planting the farrows were opened by hand using hoes.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 19 September 2006. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Astrid, Calibra, Ronn, Mnandi and BP1.

The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm.

A basal fertilizer dressing of DAP at the rate of 775kg/ha and KCL (Potassium) at 440kg/ha was applied at planting. Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing with LAN at a rate of 362.5kg/ha and final ridging was done. Only 3 reps were

sprayed with fungicides (Bravo and Dithane m45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

The following data was recorded:

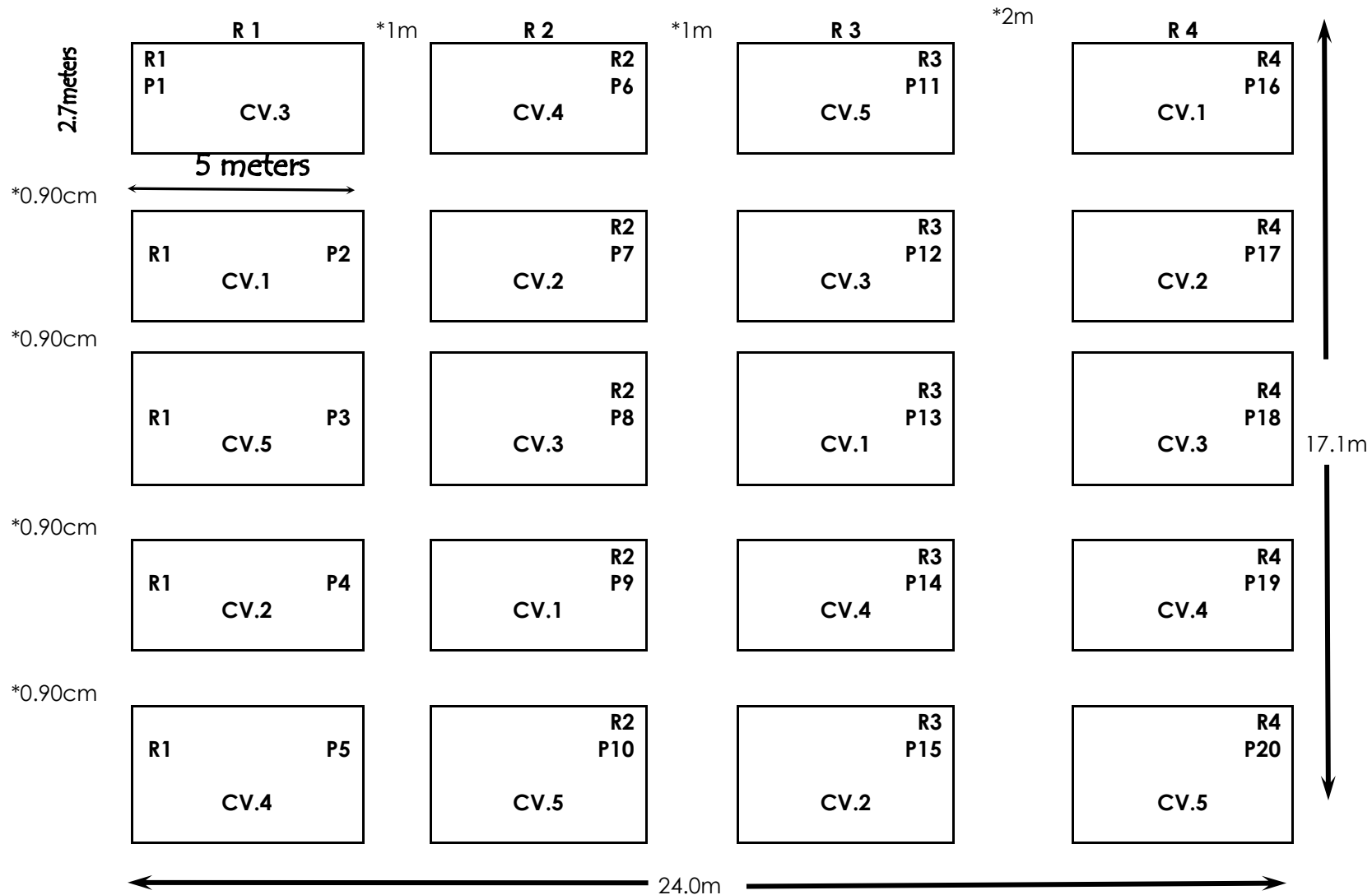
Growing period: (1) 75% plant emergence
(2) 75% foliage die-back

Number of plants after emergence for each replicate

Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot Eelworm.

Evaluation of internal properties of the Tuber: Hollow Heart, Internal appearance and Flesh colour .Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

**Potato Cultivar Project
Field Plan**



Key

- CV = Cultivar
- R = Replicate
- P = Plot
- * = Pathway

Plot size

Length = 10mts
width = 2.7mts =
4 rows @ .90cm
apart Tuber Spacing
30cm apart

Cultivars = 5

CV.1.MNANDI
CV.2.RONN
CV.3.BP-1

CV.4.CALIBRA
CV.5.ASTRID

Rep 1 + Rep 2 +Rep
3

will be sprayed

Rep 4 will be
unsprayed

Results

Cultivar	Date of emergence	Plant Count			Growth Vigour	Late Blight	Early Blight	Die-back Dates	Second Growth	Tuber shape	Eye dept	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	internal Appearance	Flesh colour	R1/R2/R3 Mean yield in Ton/Ha	R4 unsprayed Yield in Ton/Ha
		R1	R2	R3															
MNAND	29/09/0	34	34	33	3	5	4	23/02/0	4	3	3	5	5	5	5	2	2	18.0	15.0
Ronn	29/09/0	33	33	33	3	5	4	23/02/0	4	3	3	5	5	5	5	2	3	20.0	10.0
BP 1	29/09/0	28	33	33	3	4	3	23/02/0	4	3	3	5	4	5	5	2	3	15.0	11.0
CALIBRA	29/09/0	32	34	32	3	4	4	23/02/0	3	4	3	5	5	5	5	2	3	18.0	16.0
ASTRID	29/09/0	33	34	34	2	5	4	23/02/0	4	3	3	5	4	5	5	2	2	21.0	17.0

KEY: 5 is no infection and 1 is severe infection

The Charts below illustrate the yields of Potato cultivars evaluated at Loskop, Treated and untreated with Insecticides and Fungicides.

Chart. 1

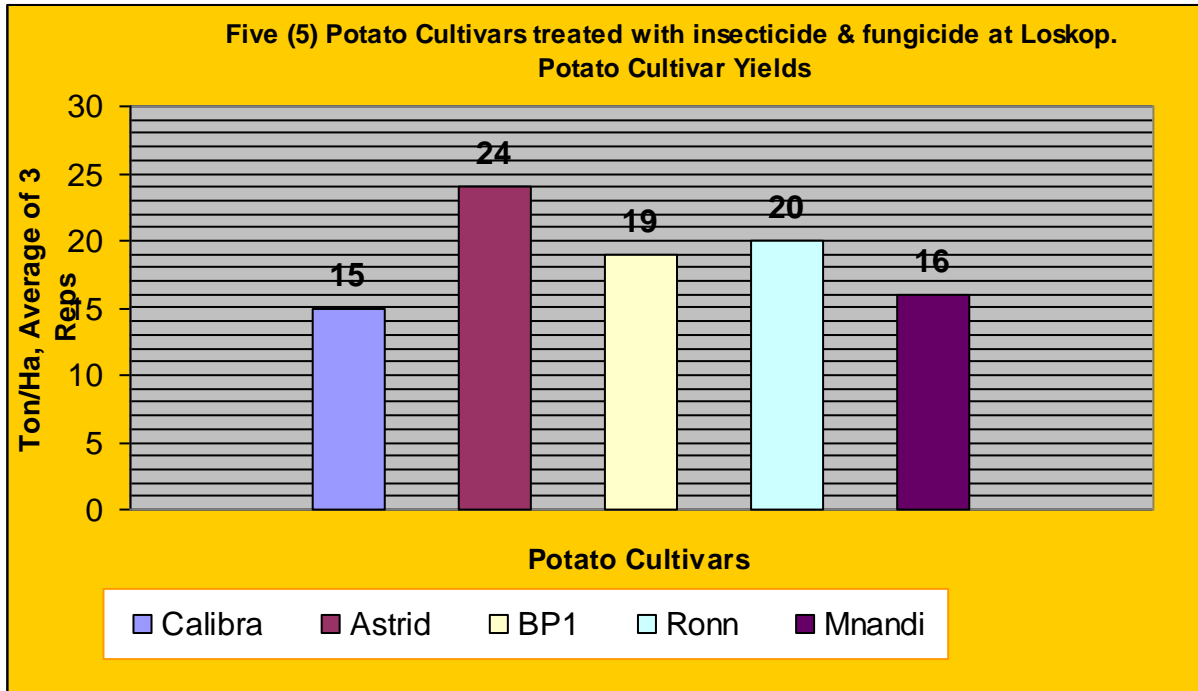
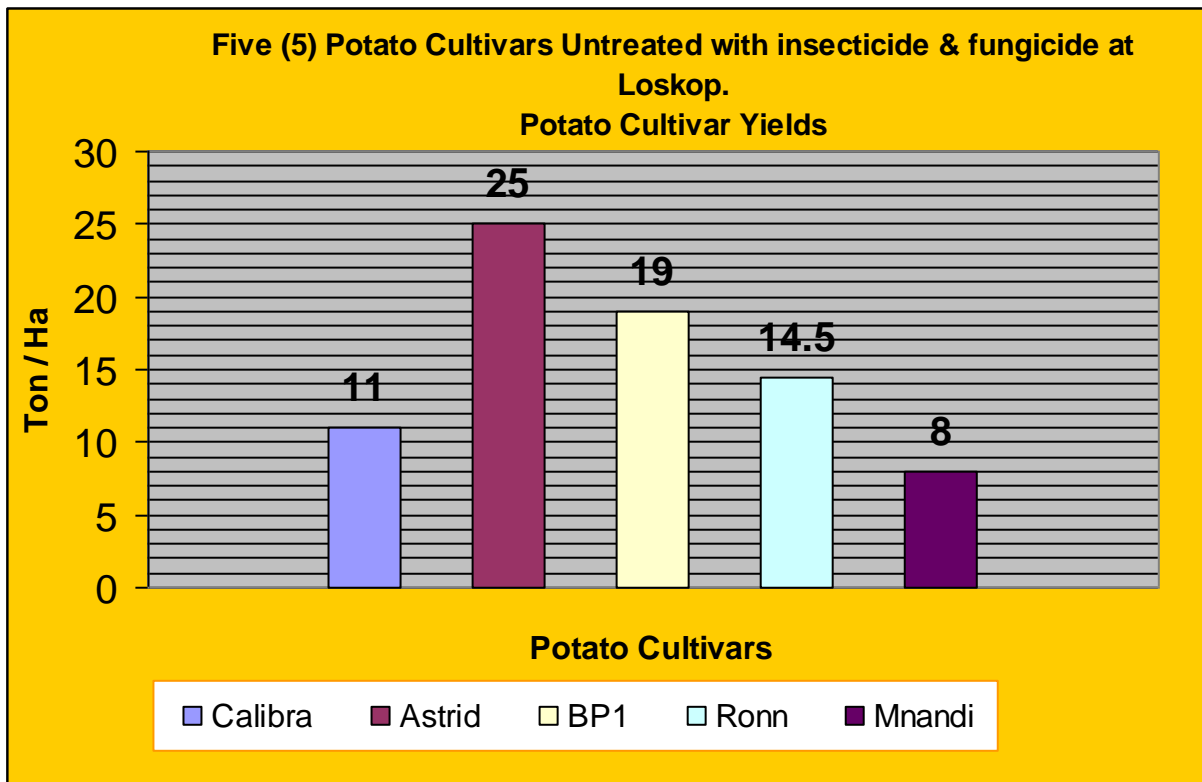


Chart. 2



Conclusion

The project at Loskop was planted and irrigated. These are the average yields Astrid (24 Ton/Ha) followed by Ronn (20.0 Ton/Ha), then BP.1 (19.0 Ton/Ha), Mnandi (16 ton/Ha) and Calibra (15.0 Ton/ Ha). The results have shown that the long and medium season cultivars did not grow to its full term due to poor management.

Lessons Leant

- 1.) Lack of management skills
- 2.) Mentorship needed on a day to day basis
- 3.) The importance of irrigation scheduling.
- 4.) Needs more community involvement, and Potato South Africa's committee members.
- 5.) The Loskop project was poorly managed.
- 6.) The yields were very low

Due to the change of site, the site that was allocated was water logged and lot of the tubers got rotten, that is one of the reasons for the poor yields, the second reason is poor management and commitment from the farmers. The Picture below indicates transfer of technology because one of the farmers that was present from the start of the project, decided to practice what he has learnt. The committee has promised a better site next year.

PROJECT NAME: CULTIVAR TRIAL AND TRAINING- NEWCASTLE
STARTING DATE: July 2006
FINISHING DATE: June 2009
IMPLEMENTATION AGENT: Shiels Management Services

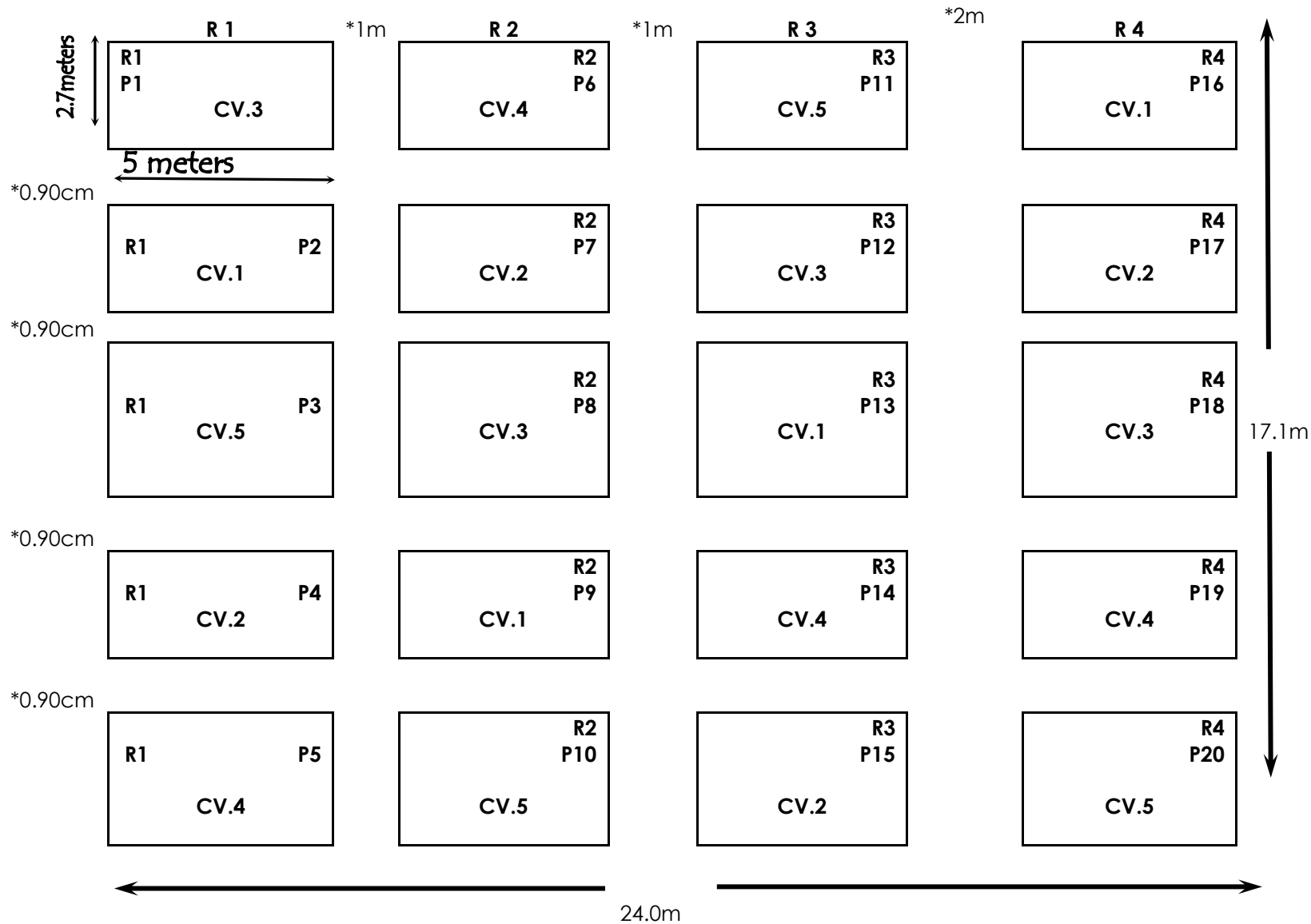
OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

Summary of Project Procedures

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds.

**Potato Cultivar Project
Field Plan**



Key

- CV = Cultivar
- R = Replicate
- P = Plot
- * = Pathway

Plot size

Length = 10mts
width = 2.7mts =
4 rows @ .90cm
apart Tuber Spacing
30cm apart

Cultivars = 5

CV.1.Calibra
CV.2.Astrid
CV.3.BP-1

CV.4.Ronn
CV.5.Mnandi

Rep 1 + Rep 2 +Rep
3

will be sprayed

Rep 4 will be
unsprayed

Two weeks later the land was ploughed and disced and on the day of planting the farrows were opened by tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 10 October 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Calibra, Astrid, BP1, Ronn and Mnandi. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of DAP at the rate of 575kg/ha and KCL (Potassium) at 500kg/ha was applied at planting.

Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing with LAN at a rate of 488kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane M45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

The following data was recorded:

Growing period: (1) 75% plant emergence
 (2) 75% foliage die-back

Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm).

Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour.

Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Bligh	Early Bligh	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance	Flesh colour	R1 T/Ha	R2 T/Ha	R3 T/Ha	R4 T/Ha
		R1	R2	R3	R4																	
CALIBRA	02/11/0	30	24	26	29	3	5	3	28/02/	3	4	3	5	5	5	5	2	3	28.0	27.0	27.0	17.0
ASTRID	29/10/0	34	34	34	34	4	5	4	28/02/	4	3	3	5	5	5	5	2	2	71.0	74.0	64.0	42.0
BP 1	29/10/0	33	33	29	25	4	4	3	28/02/	3	3	3	5	4	5	4	2	3	69.0	69.0	66.0	45.0
RONN	30/10/0	34	34	34	34	4	4	4	28/02/	4	3	3	5	5	5	5	2	2	83.0	71.0	77.0	44.0
MNAND	02/11/0	34	34	32	28	4	5	4	28/02/	3	3	3	5	5	5	5	2	2	48.0	44.0	44.0	40.0

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot, Secondary growth and Hollow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour:

KEY: 4 = White
 3 = Cream
 2 = Light Yellow
 1 = Dark Yellow

Tuber shape:

KEY: 4 = Round
 3 = Oval
 2 = Long-oval
 1 = Long

Eye depth:

KEY: 3 = Shallow
 2 = Intermediate
 1 = Deep

Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

The Charts below illustrate the yields of Potato cultivars evaluated at Newcastle, Treated and untreated with Insecticides and Fungicides.

Chart. 1

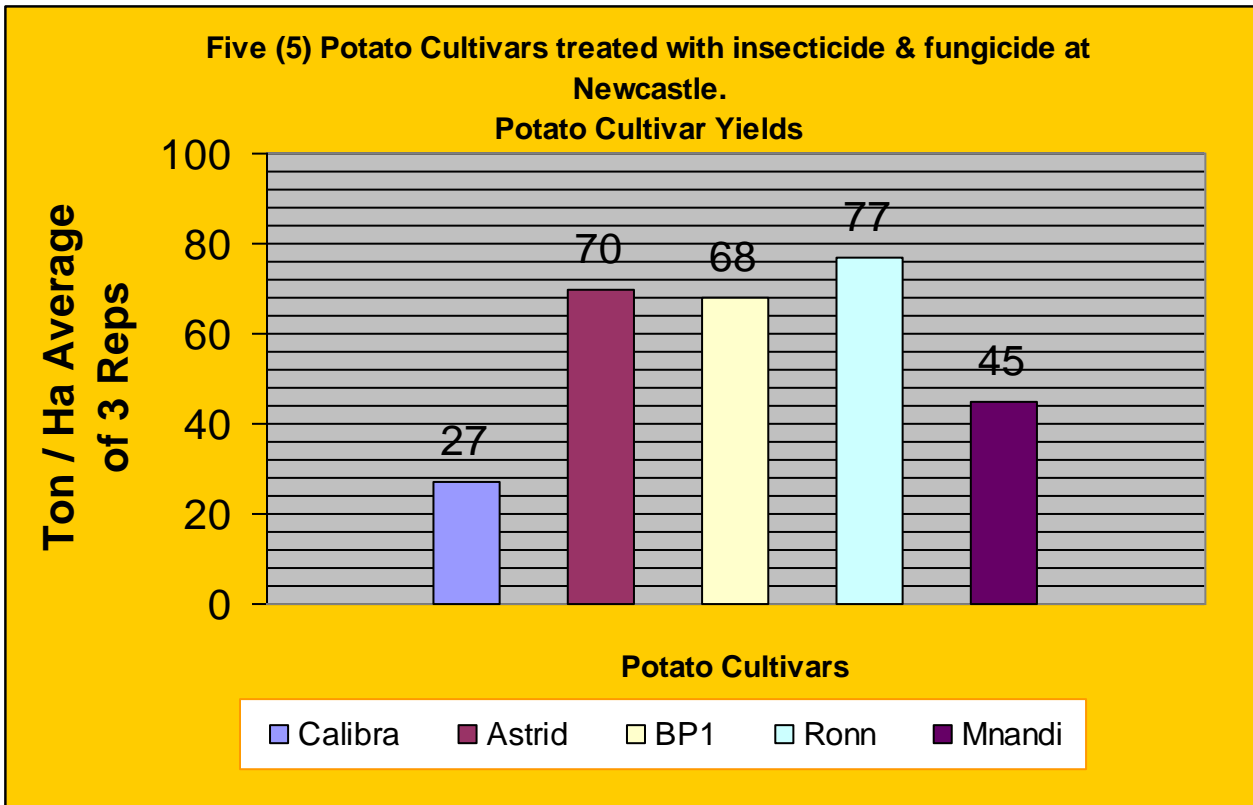
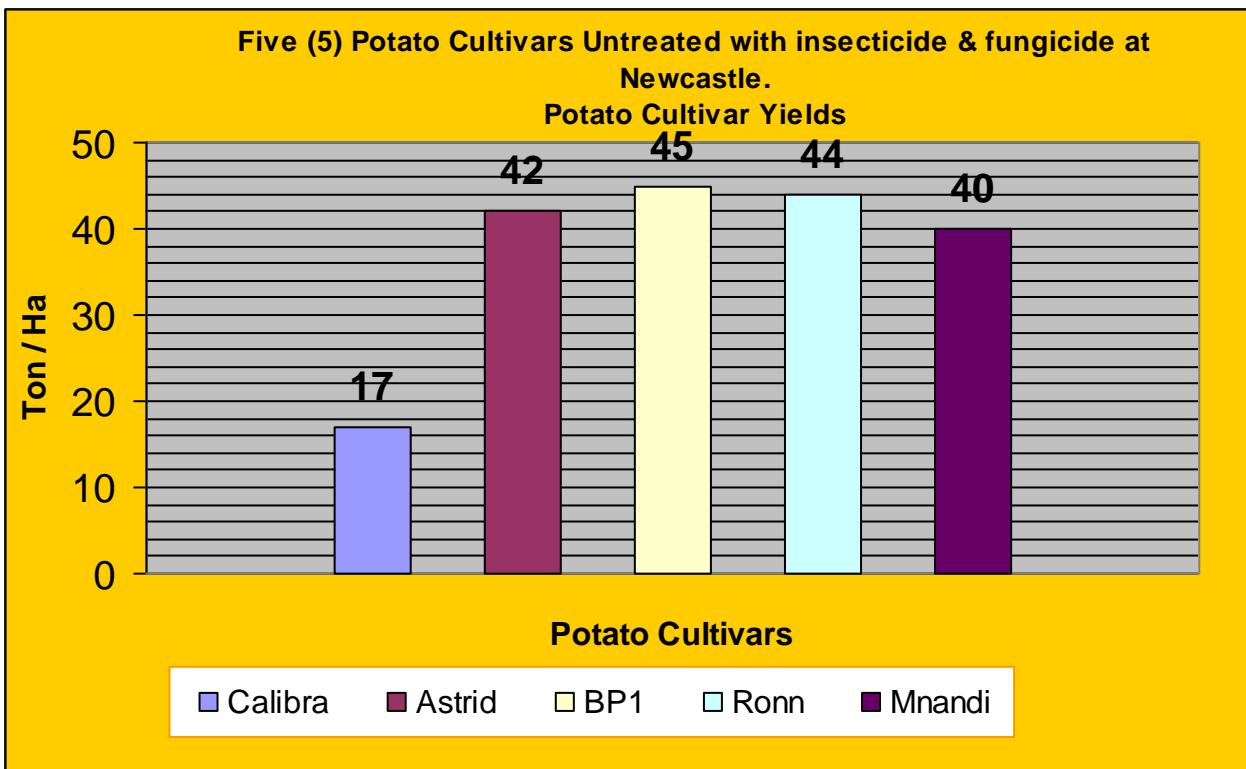


Chart. 2



Conclusion

The project at Newcastle was planted and irrigated. These are the average yields Ronn (77.0 Ton/Ha)) followed by Astrid (70 Ton/Ha), then BP.1 (68.0 Ton/Ha), Mnandi (45 ton/Ha and Calibra (27.0 Ton/ Ha). The results have shown that the long and medium season cultivars did grow to its full term due to good management.

Due to good management they have obtained good yields of the project. The Newcastle farmers are very keen in growing potato, and they do grow quite a large sum of potato at present. The Mnandi Cultivar could have done better if it was properly ridged.

Lessons Learnt

- 1.) Newcastle has a good potential for potato production.
- 2.) Time of planting is very important.
- 3.) The Availability of potato seeds to the farmers.
- 4.) Choice of potato cultivar other than BP1.
- 5.) Timing of land preparation
- 6.) Planning.
- 7.) The importance of ridging.

Due to good management they have obtained good yields of the project.

The Newcastle farmers are very keen in growing potato, and they do grow quite a large sum of potato at present.

PROJECT NAME: CULTIVAR TRIAL AND TRAINING- WARTBURG
STARTING DATE: July 2006
FINISHING DATE: June 2009
IMPLEMENTATION AGENT: Shiels Management Services

OBJECTIVES

1. To evaluate cultivars for agronomics performance under low input conditions.
2. To develop a simple and affordable (input) package for small scale potato farmers.
3. To demonstrate good production practices to small-scale potato farmers and transfer new technology

Summary of Project Procedures

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds.

Two weeks later the land was ploughed and disced and on the day of planting the farrows were opened by tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 03 September 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Calibra, Astrid, BP1, Ronn and Mnandi. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of DAP at the rate of 650kg/ha and KCL (Potassium) at 800kg/ha was applied at planting.

Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing with LAN at a rate of 500kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane M45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

The following data was recorded:

Growing period: (1) 75% plant emergence
 (2) 75% foliage die-back

Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm).

Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour.

Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Bligh	Early Bligh	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance	Flesh colour	R1 T/Ha	R2 T/Ha	R3 T/Ha	R4 T/Ha
		R1	R2	R3	R4																	
CALIBRA	26/09/0	34	34	34	34	4	5	4	23/01/	5	3	3	4	5	5	5	2	3	25.0	34.0	37.0	32.00
ASTRID	30/09/0	34	34	34	34	4	5	4	25/01/	5	3	3	5	5	4	5	2	2	49.0	39.0	43.0	43.0
BP 1	17/09/0	32	34	34	34	4	4	3	15/01/	5	3	3	4	5	4	5	2	3	40.0	41.5	36.0	34.0
RONN	22/09/0	34	34	34	34	4	5	4	17/01/	5	3	3	4	5	5	5	2	3	28.0	50.0	36.0	29.0
MNAND	22/09/0	34	34	34	34	4	5	4	25/01/	5	3	3	5	5	5	5	2	2	54.0	52.0	63.0	43.0

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot, Secondary growth and Hollow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour:

KEY: 4 = White
 3 = Cream
 2 = Light Yellow
 1 = Dark Yellow

Tuber shape:

KEY: 4 = Round
 3 = Oval
 2 = Long-oval
 1 = Long

Eye depth:

KEY: 3 = Shallow
 2 = Intermediate
 1 = Deep

Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

The Charts below illustrate the yields of Potato cultivars evaluated at Wartburg, Treated and untreated with Insecticides and Fungicides.

Chart. 1

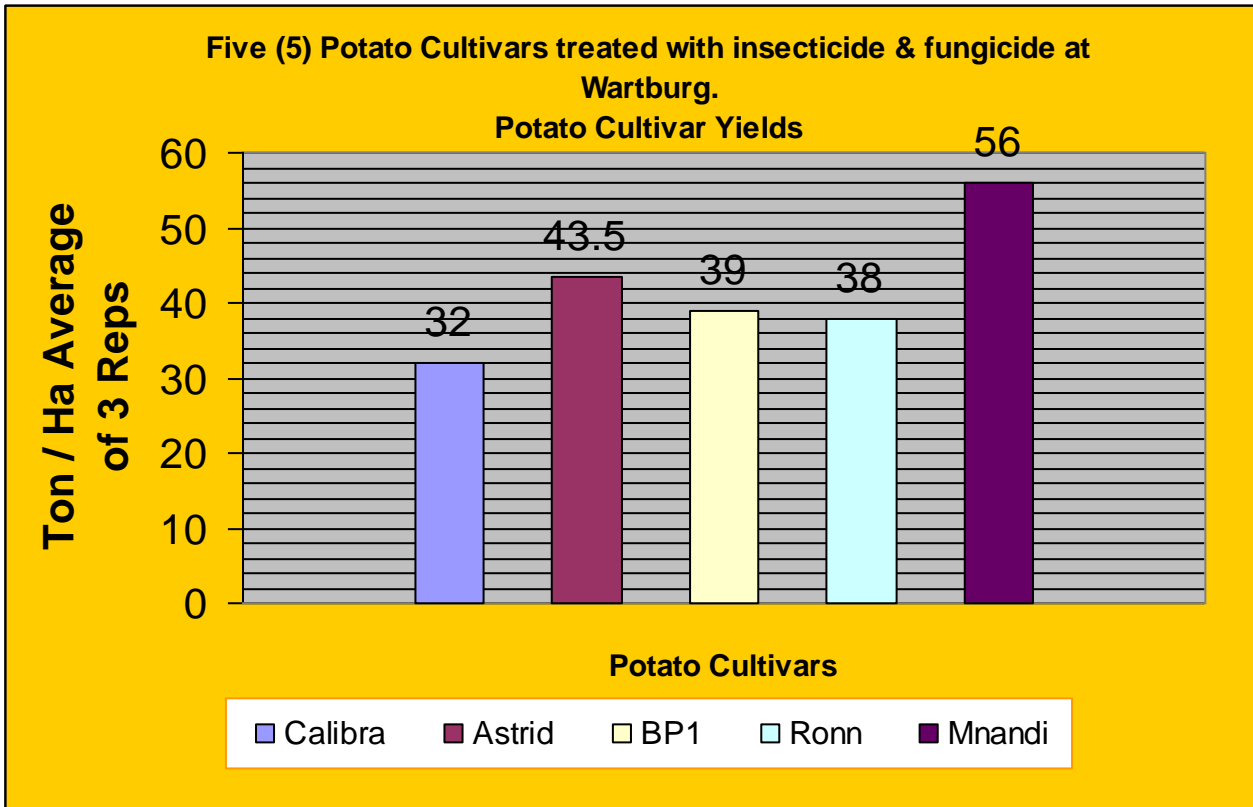
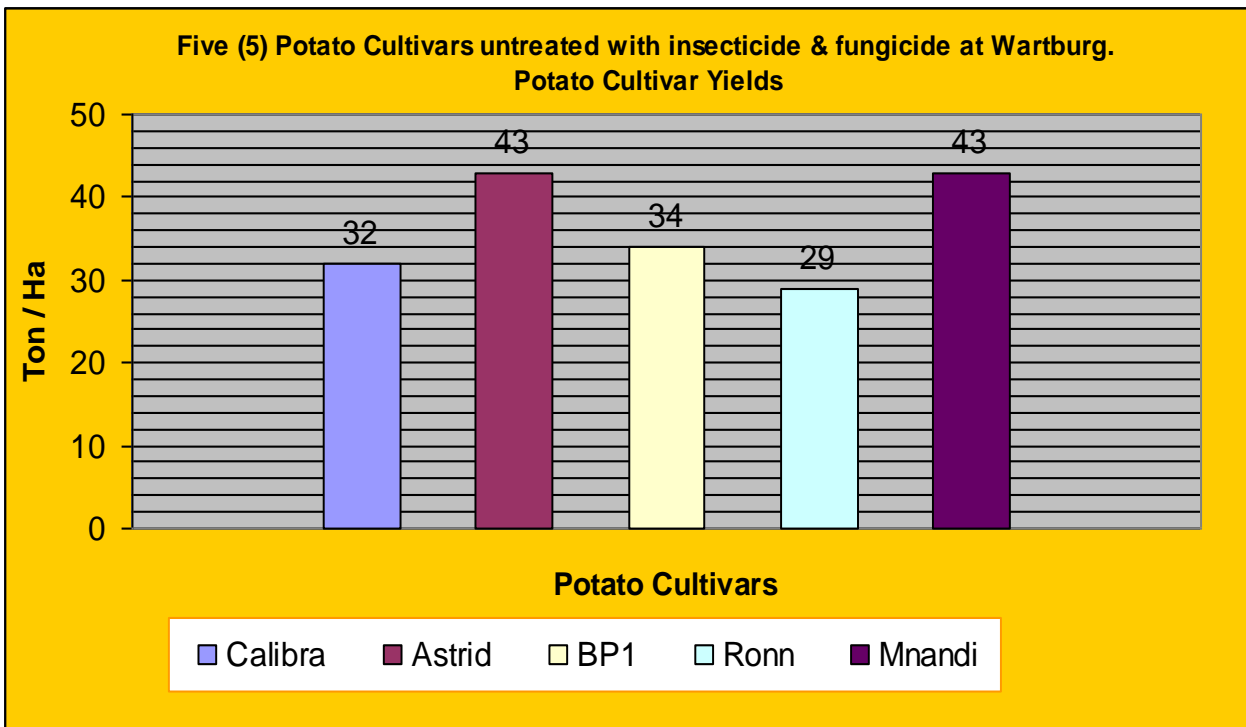


Chart. 2



Conclusion

The project at Wartburg was planted and irrigated. These are the average yields Mnandi (56 ton/Ha) followed by Astrid (43.5 Ton/Ha), then BP.1 (39.0 Ton/Ha), Ronn (38.0 Ton/Ha) and Calibra (32.0 Ton/ Ha). The results have shown that the long and medium season cultivars did grow to its full term due to good management.

Due to good management they have obtained good yields of the project. The Wartburg farmers are very keen in growing potato, and they do grow quite a large sum of potato at present.

Lessons Learnt

- 1.) Due to good management they have obtained good yields of the project. The Wartburg farmers are very keen in growing potato, and they do grow quite a large sum of potato at present.
 - 2.) Tubers damaged by insects.
 - 3.) How and were to market the produce.
 - 4.) Availability of potato seeds.
 - 5.) Choice of cultivars
-

PROJECT NAME: CULTIVAR TRIAL AND TRAINING- PORT SHEPSTONE
STARTING DATE: July 2006
FINISHING DATE: June 2009
IMPLEMENTATION AGENT: Shields Management Services

OBJECTIVES

4. To evaluate cultivars for agronomics performance under low input conditions.
5. To develop a simple and affordable (input) package for small scale potato farmers.
6. To demonstrate good production practices to small-scale potato farmers and transfer new technology

Summary of Project Procedures

On the first visit the purpose of the project was explained to the small scale farmers, the land was allocated for the project, soil sample was taken and the land was sprayed with herbicide (Roundup) to kill off weeds. Two weeks later the land was ploughed and disced and on the day of planting the furrows were opened with a potato ridger using a tractor.

Five (5) cultivars of potato tuber seeds were hand-planted on a small-scale farmer's land on 04 May 2007. The cultivars planted in this project were particularly selected for their moderate to high field resistance to foliar diseases (early and late blight and viruses) and tuber diseases (scab). These cultivars include: Astrid, BP1, UTD, Mnandi and Ronn. The project was planted in a randomized block design with 4 replicates under irrigation. The plots consisted of 4 rows 5 meter long with an inter-row spacing of 90cm and an intra-row spacing of 30cm. A basal fertilizer dressing of DAP at the rate of 490kg/ha and KCL 960kg/ha and was applied at planting. Pre-emergence herbicides (Dual and Sencor) were applied after planting and after ridging weed control was done by hand hoeing. Top dressing (LAN at a rate of 550kg/ha and final ridging was done. Only 3 reps were sprayed with fungicides (Bravo and Dithane m45) and insecticide (Cypermethrine) applied at the recommended rates after planting to control early and late blight diseases as well as insects. The crop was harvested after foliage die-back. Only 2 rows of each plot were harvested.

Observation

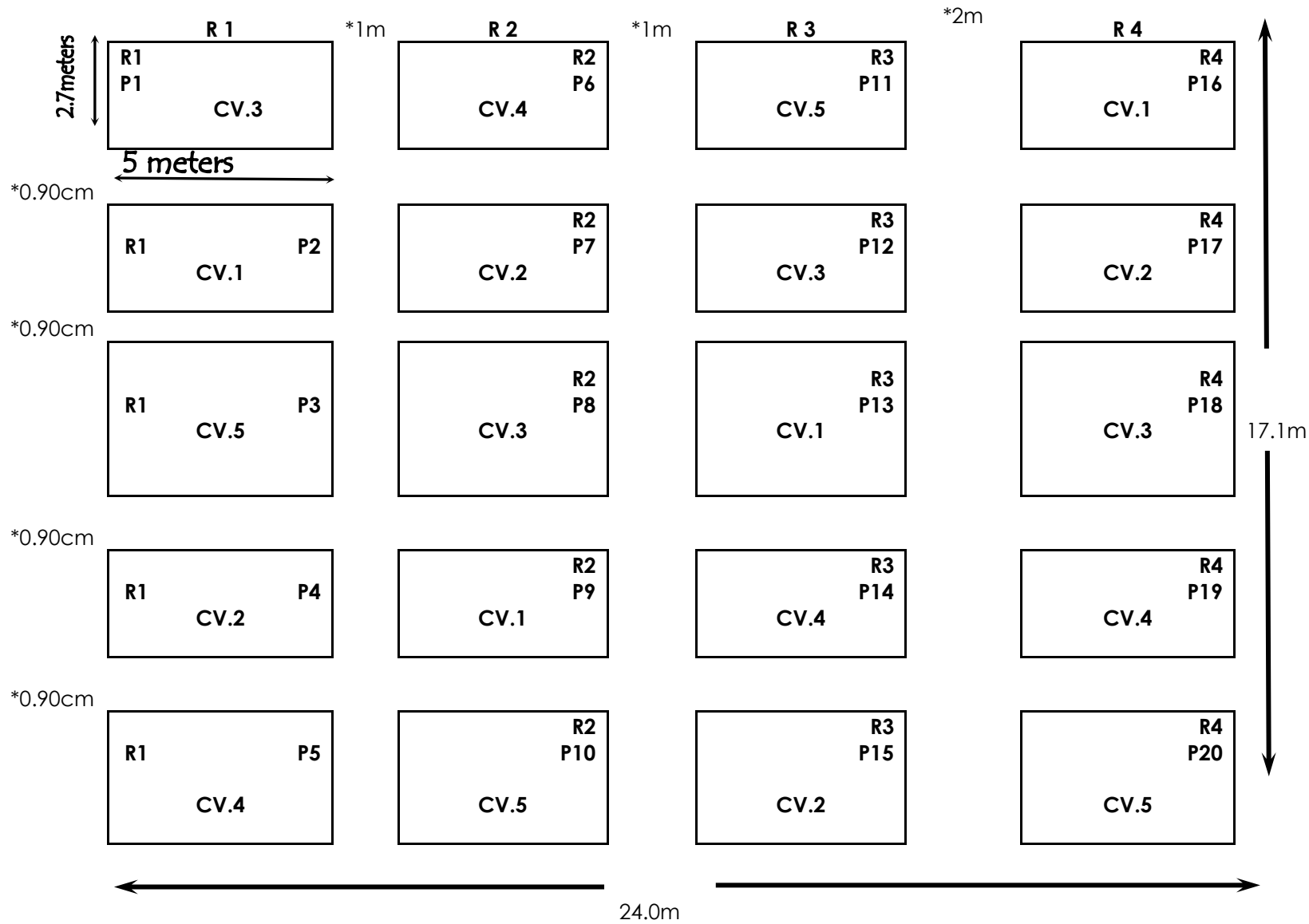
The following data was recorded:

Growing period: (1) 75% plant emergence
(2) 75% foliage die-back

Number of plants after emergence for each replicate. Secondary growth, Tuber shape, Eye depth, Fusarium dry-rot and Stem end-rot, Late blight, Early blight, Common scab and Root Knot (Eelworm). Evaluation of internal properties of the Tuber:

Hollow Heart, Internal appearance and Flesh colour. Grading and sorting of potato tubers in four (4) different sizes (Large >250 Medium 100-250 Small 50-100 and unmarketable) and weighting.

**Potato Cultivar Project
Field Plan**



Key

- CV = Cultivar
- R = Replicate
- P = Plot
- * = Pathway

Plot size

- Length = 10mts
- width = 2.7mts =
- 4 rows @ .90cm
- apart Tuber Spacing
- 30cm apart

Cultivars = 5

- CV.1.Mnandi
- CV.2.UTD
- CV.3.BP-1

- CV.4.Ronn
- CV.5.Astrid

Rep 1 + Rep 2 +Rep 3

will be sprayed

Rep 4 will be unsprayed

Results

Cultivar	Date of emergence	Plant Count				Grow Vigour	Late Bligh	Early Bligh	Die-back Dates	Secondary Growth	Tuber shape	Eye depth	Fusarium Dry-rot	Common scab	Root knot Eel-worm	Hollow Heart	Internal Appearance	Flesh colour	R1 T/Ha	R2 T/Ha	R3 T/Ha	R4 T/Ha
		R1	R2	R3	R4																	
Mnandi	17/05/0	33	33	34	33	4	5	5	01/10/	5	3	3	5	5	5	5	2	2	41.0	55.0	58.0	28.7
UTD	17/05/0	33	32	34	34	4	5	4	01/10/	5	3	3	5	5	5	5	2	3	36.0	42.0	38.7	39.6
BP 1	15/05/0	33	34	34	34	4	5	4	01/10/	5	3	3	5	5	5	5	2	3	43.0	65.0	60.9	49.0
Ronn	17/05/0	32	34	34	34	4	5	5	01/10/	5	4	3	5	5	5	5	2	2	37.0	49.0	40.0	45.0
Astrid	21/05/0	34	33	33	34	4	5	5	01/10/	5	3	3	5	5	5	5	2	2	50.0	53.0	48.0	32.0

Fusarium dry-rot, Late blight, Early blight, Common scab, Root knot, Secondary growth and Hollow Heart,

KEY: 5 is good and 1 is severe infection

Flesh colour:

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Eye depth:

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Internal Appearance:

KEY: 2 = Even colour/colour intensity throughout the tuber flesh.

1 = Difference in colour/colour intensity of the tuber flesh inside.

Conclusion

The project at Port Shepstone was well managed. These are the average yields BP 1 (56.3 Ton/ Ha), followed by Mnandi (51 ton/Ha), then Astrid (50.3 Ton/Ha), Ronn (42 Ton/Ha) and UTD (39 Ton/Ha). The project will be continued and evaluated after a three year period.

For a number of years small-scale farmers have been planting potato cultivars without the knowledge of potato production methods, cultivars available and seed certification. They planted seed that was sold by the shops and local farmers, which was not Government certified and as a result they planted diseased potato seed.

Potato South Africa decided that the farmers need help, so we took the knowledge to the farmers by conducting research projects with them, teaching them the importance of soil sampling, herbicides for weed control, land preparation, cultivar choice, fertilization, fungicides for disease control, insecticide for insect control, the importance of irrigation, topdressing, ridging, harvesting and storage. Small scale farmers have limited funds, so they do not always have the equipment, such as a tractor, other implements and sprayers as well as the chemicals to control weeds, diseases and pests which are costly. Some of the disease resistant cultivars bred by the Agricultural Research Council are well suited for small-scale farmers which were used in these potato projects.

The benefit of these projects to the farmers are, hands-on practical knowledge of soil sampling, weed control, land preparation, fertilizing, planting, knowledge of new potato cultivars, which are disease resistant, availability of Government certified seed potato cultivars, high yielding cultivars, the control of fungal diseases and pests, top dressing and ridging at the right time, the importance of ridging and harvesting at the right time, as well as storage of table and seed potato. These projects are conducted on community lands which are close to the small-scale farmers to have easy access to the projects on a day to day basis and so that they can gain a good of the growth habits and the disease resistance of the different cultivars.

Every three (3) years we will include new cultivars in the project so that farmers can compare them with old cultivars and get to know the new cultivars that are available, so that they will have good knowledge of potato cultivars and use this information when purchasing potato seed.

Working with small-scale farmers is difficult, because they lack management skills and they need to be monitored on a day to day basis, they also need to know the importance of irrigation when planting potato

for profit and the losses that occur when planting under dry land conditions. Frequent visits to these potato projects will correct some of these problems and more community involvement and the committee that represents Potatoes South Africa.

The yields of these projects are very good, the committee have managed the project very well during the season and gained a lot of knowledge out of the project and are looking forward to plant lots of potato in the coming season. The Port Shepstone farmers are very keen in growing potato after seeing the good yields that potato can produce during the winter months.

PROJECT NAME:	COMMITTEE MEETINGS (KZN)
PROJECT MANAGERS:	Livhuwani Ngwekhulu, Sylvester Matlakala
STARTING DATE DATE:	January 2007
FINISHING DATE:	Continuous
WRITTEN BY:	Livhuwani Ngwekhulu

SUMMARY

A total of five (5) committees have been set up in KwaZulu/Natal, where they are going to meet at least three times annually. The first round of meetings to set up the committees has already been done and Sylvester is coordinating with the chairpersons on the ground on a daily basis. The committee in Newcastle is well functional and can serve as a flagship to others.

OBJECTIVES 2007/2008

- Create a platform for the coordination of small scale farmers activities where there is a high number of farmers
- Functional committees that coordinate small scale and emerging farmers' affairs in their production region.

PROGRESS REPORT

Introduction

Potatoes South Africa functions properly with well-functional structures on the ground, representing farmers. Committees have been established where potatoes are grown in the country to function as a mouthpiece for farmers and PSA, and KZN as a region with a high number of small scale producers, has a higher number of committees in order to reach many farmers.

Materials and Methods

All committees were set up during the first half of this year, comprising but not limited to 5 members where the chairperson must plant at least 5ha. The committee is made up of potato farmers who represent potato farmers in their region. The regional chairpersons will thereafter become part of the provincial committee. Provincial chairpersons will sit in the PSA National Developing Farmers Committee.

Committees in the following regions have been established, with their respective chairpersons:

Area	Chairperson
Newcastle	Lindiwe Dlomo
Mkuze/Bayala	S B Manyanga
Mtubatuba	T G Ntombela
Wartburg	J Hlongwane
Estcourt	V Mazibuko

It must be highlighted that in Empangeni and Midlands, there are two gentlemen namely Pastor Ntuli and Mr. Sigwebela, who are doing a lot of ground work on potatoes and so it was decided not to have a committee there..

Results

These committees are helping us in the planning of trials that we are running in KZN, collection of farmer's database etc. The existence of a meaningful structure showed its significance in Newcastle as the local municipality was able to provide farmers with some funds for planting as they were functioning as a unit.

Conclusions and lessons

This is no doubt the way to maintain touch with farmers on the ground, it should however be exclusively for potato farmers to avoid unnecessary interference by individuals with other agendas.

PROJECT NAME: **SAND TRIAL & TRAINING**
PROJECT MANAGERS: Diale Mokgojwa, Terence Brown & Ben Pieterse
STARTING DATE: July 2005
FINISHING DATE: June 2010
IMPLEMENTATION AGENT: SAND
WRITTEN BY: Human Kotze

SUMMARY

Potato producers developed their own experimental site, named Sandveld Aartappel Navorsing en Demonstrasie perseel (S.A.N.D.) for training purposes because of the infrastructure, knowledge and information regarding potato production on this site. The site is situated between the towns of Redelinghuys and Aurora. Various potato trails are conducted on this site annually. The Department of Agriculture is a partner in the project and provides support to ensure successful implementation of various initiatives. The experimental site is perfectly situated for the theoretical and practical training on potato farming for students and farmers. The project manager for S.A.N.D., Human Kotze, is permanently based on the site and therefore available on a daily base.

GOALS:

- To give farmers theoretical and practical training on potato production
- To plant trials using organic and inorganic fertilizer
- Train 30 farmers every year

OBJECTIVES 2007/2008

- Receipt of theoretical and practical training on potato production by farmer students at S.A.N.D.
- Successful testing of organic fertilizers on potatoes.
- Successful planting of potatoes by five farmers under mentorship.
- On job training of the farmers and increased yields on leased land.

PROJECT REPORT:

INTRODUCTION

The trial was planted in November 2007. Students visited the site four times during the year for practical courses. A full potato course has been developed, focussing on the following:

1. Planning
2. Handling of seed
3. Cultivar choices
4. Preparation of soil
5. Planting process
6. Different growing stages of the plant
7. Fertilizing
8. Weed control
9. Harvesting
10. Marketing and quality assurance

MATERIALS AND METHODS:

Potatoes South Africa supply inputs and co-ordinate the process, including two farmers' days (one July and one December) and donate copies of the "Guide for potato production" for the students. Prokon conducts the quality assurance course. The Department of Agriculture assists the project by co-ordinating the travel and housing of the students and also organizing the farmers' days. The farmers who attend the course are given seed and fertilizer to go and plant at their own places. An assessment team made up of Human Kotze and Marius du Randt assess the plantings. The farmer who gets the best yield is presented with prize money of R1000 at the SAND farmers' day. The last winner was Mrs Solomons and Potatoes South Africa CEO handed the prize to her. An article about her with photos was published in Chips magazine. These farmers also attend the annual SAND farmers' day in November.

RESULTS:

Emerging farmers training

Every year from 2006 there has been two training sessions held at SAND. Emerging farmers from Wupertal, Goedverwacht, Malmesbury (Leliefontein), Vredenburg, Ebenaezer, Ceres and Aurora attend the course. During 2007 there were two training sessions where an opportunity was afforded to 17 and 30 small farmers in the two sessions.

Demonstration trail:

During the small farmers' training the farmers are taken to the lands where the planting process, fertilizer application, and irrigation practices are explained. A trial plot was planted for training purposes.

CONCLUSION:

There is a growing partnership between Potatoes South Africa, the Department of Agriculture and the project manager, Human Kotze. This project is becoming well known within the Agriculture sector.

PROJECT NAME:	DEVELOPMENT	OF	LISA
PROGRAMME- SAND			
PROJECT MANAGERS:	Diale	Mokgojwa,	Terence
Brown & Ben Pieterse			
STARTING DATE:	July 2005		
FINISHING DATE:	June 2010		
IMPLEMENTATION AGENT:	SAND		
WRITTEN BY:	Human Kotze		

SUMMARY:

Potato producers developed their own experimental site, named Sandveld Aartappel Navorsing en Demonstrasie perseel (S.A.N.D.) for training purposes because of the infrastructure, knowledge and information regarding potato production on this site. The site is situated between the towns of Redelinghuys and Aurora. Various potato trails are conducted on this site annually. The Department of Agriculture is a partner in the project and provides support to ensure successful implementation of various initiatives. The experimental site is perfectly situated for the theoretical and practical training on potato farming for students and farmers. The project manager for S.A.N.D., Human Kotze, is permanently based on the site and therefore available on a daily base.

OBJECTIVES:

To develop an economic Least Input for Sustainable Agriculture (LISA) programme that is aimed at sustainable potato production by emerging farmers in order to utilize available land and aid to the maximum benefit of an integrated production system.

- Successful testing of organic and inorganic fertilizer and their effects on potatoes.
- Successful testing of crop rotation and the effects it has on yields.

PROGRESS REPORT:

INTRODUCTION

The trial has been planted during November 2007. The Department of Agriculture's input amounted R450 000 for the year. This project forms part of the Department of Agriculture's training programmes.

MATERIALS AND METHODS:

Team:

Potatoes South Africa co-ordinate the process. A advisory-committee has been established to manage the practical side of this project namely:

- | | | | |
|----|-------------------------------|---|-----------------------|
| 1. | The Department of Agriculture | - | Adriaan Conradie |
| | | | Marius du Randt |
| 2. | Project Manager | - | Human Kotze |
| 3. | Sandveld Work Study Group | - | Piet Brink |
| 4. | Potatoes South Africa | - | Terence Brown |
| 5. | Farmers | - | Petrus van der Merwe |
| | | | Van Zyl van der Merwe |

Internship programme

A student in her final year, Mandy Barnes, was appointed to undergo on the job training and assist with the LISA research trial and training of small scale farmers. Ms Barnes fitted in well and could perform all the tasks and assignments given to her.

LISA research trial:

The trial commenced during 2007. After this first planting the trial was moved to a block where the land was more homogeneous. The first planting commenced in October 2007 and potatoes cabbage ground nuts, was planted on the plot. This data was not processed at this stage, but will be presented as a complete report at a later stage. The next planting will take place during March and will consist out of potatoes, cabbage and onions.

CONCLUSION:

This trial was extremely well received at the commercial farmers' day. A lot of interest was shown by commercial farmers as well

PROJECT NAME: TRIAL & TRAINING- ZEBEDIELA
PROJECT NO: 36
PROJECT MANAGER: Diale Mokgojwa, Riana Britz
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Livhuwani Ngwekhulu

SUMMARY

The trial was planted on Mr. Joe Gondo's farm, who was the chairperson of the transformation committee at the time and NAFU. Potatoes SA helped the farmer with expertise and implements to work the land on a small scale. The farm is in Zebediela.

OBJECTIVES 2006/2007

PROGRESS REPORT

Introduction

The main objective was to impart potato production skills to the developing farmers in the region, other local potato farmers were the target of the trial. Furthermore, the climatic conditions in Zebediela are not very similar to the ones at PAX and Tzaneen.

Materials and Methods

The area planted was 0.75 ha with the cultivar BP1. PSA supplied planting material and chemicals. Israel Mashile, of Bayer went to the farm to show farmers the safe use of chemicals and the spraying program, and the farmers then took over. PSA supplied packaging material and the lifter during lifting.

Results

Lifting started on the 14th of December and an information day was held on the day to demonstrate to other farmers the sorting and grading and to share lessons learnt during the production season. A total of 1500 10kg pockets was harvested out of the 0,75ha, giving us a yield of 20tons a hectare. The main problem was scab and soft rot.

Conclusions and lessons

The project has been discontinued due to change in strategy for Limpopo area. The focus now is on the partnership development approach which involves the Provincial Department of Agriculture. To this end three projects have been set up and a three pronged approach towards development has been decided upon. This involves short courses, mentorship and tertiary skills development pipeline

PROJECT NAME: TRIAL AND TRAINING- TZANEEN
PROJECT MANAGER: Diale Mokgojwa, Riana Britz
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Livhuwani Ngwekhulu

SUMMARY

The project was initially planned for Dendron but was moved to Tzaneen due to the unavailability of land in Dendron area. The farmers in Tzaneen are land reform beneficiaries and have some cultivated land where the trial was done. The farm is situated just some 10km east of Tzaneen.

OBJECTIVES 2006/2007

PROGRESS REPORT

Introduction

The main objective was to impart potato production skills to the developing farmers in the region. It is warmer and humid than it is in the western parts where PAX trial was held.

Materials and Methods

Only half a hectare was planted in Tzaneen, with BP1 and Mondial in 2007 as it was in Pax. PSA supplied planting material and chemicals, the farmers were involved in the spraying of the crop to get them the hands on practice. Packaging material was supplied as well as the lifter during lifting. The farm supplied the irrigation system although it broke down along the way and no watering took place for weeks.

Results

Lifting was scheduled for December 2007 but had to be postponed due to rain, eventually it started on the 7th of January 2008, resulting in some losses due to high temperatures. The lack of water during the growing stage as well as the loss of yield due to high temperatures during the extended days resulted in lower yield. We got some 600 10kg pockets from the 0,5ha, resulting in 12 tons per ha average of the two cultivars. Soft rot was the main problem.

Conclusions and lessons

The project is not going to continue, however they are well equipped currently as the government has given them a 30ha centre pivot. An amount of R47 000 was budgeted and the total spent was R51 000.

PROJECT NAME: TRIAL AND TRAINING- PAX
PROJECT MANAGER: Diale Mokgojwa, Riana Britz
STARTING DATE: July 2007
FINISHING DATE: June 2008
WRITTEN BY: Livhuwani Ngwekhulu

SUMMARY

PAX is a missionary school where they engage themselves in training students in agricultural skills. It is located some 30km west of Polokwane.

OBJECTIVES 2006/2007

PROGRESS REPORT

Introduction

Limpopo ranks as one of the biggest potato producing regions in the country and the community around PAX depends on agriculture heavily. Based on their size of production, the market in Polokwane can absorb most of their produce as well as the local stores.

Materials and Methods

A total of at least 1,5 hectare was planted in 2007 on different sites, two cultivars were used, Mondial and BP1. Harvesting began on the 27th of November and PSA helped the trainees with sorting, grading and packaging of potatoes. All the seeds, chemicals, packaging materials as well as lifters and planters were provided by PSA.

Results

We managed to get some 3200 10kg pockets of potatoes from the 1,5ha planted, resulting in some 21 tons yield per hectare. The early blight affected some plants but the main problem was scab and potato tuber moth.

Conclusions and lessons

The project is not going to continue.

PROJECT NAME: LOWVELD AGRICULTURAL COLLEGE
PROJECT MANAGER: Johan Holtzhauzen
STARTING DATE: July 2007
FINISHING DATE: June 2010
WRITTEN BY: Livhuwani Ngwekhulu

SUMMARY

Two trials are usually run at the college. One serves as a cultivar trial with the other one serving as a demonstration for students. Potato production forms part of the curriculum at the college.

OBJECTIVES 2006/2007

- To give first year students a good potato production background.
- Identify bursary students to take at second year level.
- On the job training of the internship received and employment opportunities created.
- Farmer capacity building and skills development.

PROGRESS REPORT

Introduction

Lowveld College of Agriculture provides Potatoes South Africa with a good platform where training for farmers and students can be done. This is due to the fact that the infrastructure is in place, qualified personnel and students who do potato production as part of their curriculum.

Materials and Methods

Soil samples were taken before land preparations and they helped in the planning of a fertilizer program. PSA supplied all inputs while the college brought mechanization, water and labour. Various cultivars were planted, some of them were Mondial, BP1, Up to date, Harmony, Hertha, Carin, Valor, Pentland Dell etc. The area planted varied from 2m x 100m up to 16m x 100m.

Results

Mondial had the highest yield followed by BP1 and then Up to date. It was difficult to verify the actual yields as theft compromised the calculations due to security becoming lax at the crucial moment just before harvesting.

Conclusions and lessons

This trials form a core to the skills development in the area. From time to time farmers from around the college are invited to the demonstrations and it helps them dearly. It is an added benefit to do a trial where the infrastructure needed is in place, coupled with a dedicated team of staff.