Ministry of Agriculture, Livestock and Irrigation

Department of Agriculture

Shwedaung Township,Bago Region

Evaluation of sowing methods in monsoon paddy

Presented by

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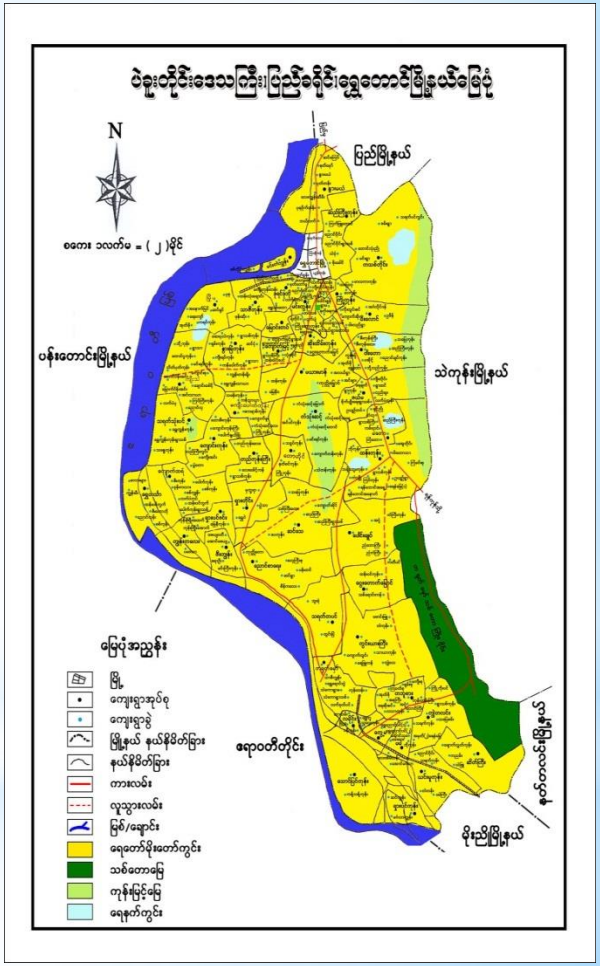
Introduction

- Crop - paddy
- Season / Year - monsoon season, 2017-18
- Experimental site - Mingoon village, Shwedaung Township,Bago Region
- Farmer name - U Kyaw Lwin
- Field no. -422^{A}

Basic data of Shwedaung township

Total area(ac)	- 181721
Village tract	- 51
Population	- 130672
Farmer	- 17713
Net sown area(ac)	- 100295
Cropping intensity(%)	-164.81
Extension agent	- 23
Rainfall	-53.82"(80 days)



Objectives

- To evaluate the sowing methods appropriate with the respective ecological conditions.
- To select the most benefit sowing methods for farmers.

Materials and Methods

- Experimental Design- 4× 1(simple)
- Individual plot size - 0.5acre
- Variety -Hybrid

Treatments

Direct seeding : 8"×4"

Broadcasting :-

SRI :10"×10"

Raised bed :8"×6"

Activities, Results and Discussion

Direct seeding

Broadcasting

SRI

Raised bed

Data collection

- 50 % flowering days
- Number of productive tillers per hill
- Plant height (cm)
- Maturity days
- Number of spikelets per panicle
- Filled grain %
- 1000 grain weight (g)
- Yield(bsk/ac)

Agronomic characters of sowing methods

Treatment	Seedling period	50 % flowering days	Plant height (cm)	Maturity days
Direct seeding	-	87	129.8	123
Broadcasting	-	87	122.8	123
SRI	12	87	125.4	123
Raised bed	20	89	114.4	123

Effects of sowing methods on yield and yield component characters in moonson paddy

Treatment	panicles per hill (no.)	Spikelets per panicle (no.)	Filled grains (%)	1000 grain wt (g)	grain yield (bsk/ac)
Direct seeding	9.20	110.47	81.2	25	113.04
Broadcasting	-	110.71	78.07	25	89.57
SRI	17.62	109.87	87.1	25	124.78
Raised bed	10.65	109.30	81.7	25	103.48

Direct Seeding

Strengthen

(a) Require less labour

(b) No preparing the nursery,

caring for and pulling the seedling

(c) High population per acre

(d) Good aeration

Weakness

(a) Rat and bird attacks to seeds

(b) Carrying away seeds by heavy rains

(c) More weeds emergence

(d) Require land levelling

Broadcasting

Strengthens

- Faster and easier method
- Require less labour
- Low cost per acre
- No recovery time

Weakness

- Require more seeds
- Distributed unevenly , overcrowding
- Grater crop-weed competition
- Rat and bird attacks to seeds

SRI

Strengthens

- Require less seeds
- High effective tillers & high yielding
- Less water usage
- Reduce transplanting shock

Weakness

- Need proper land levelling & water management
- Need skillful labour

Raised bed

Strengthens

- Facilitate management practice(hand or rotary weeding& application of fertilizer , herbicides, insecticides)
- Good aeration
- Less seed rate per acre

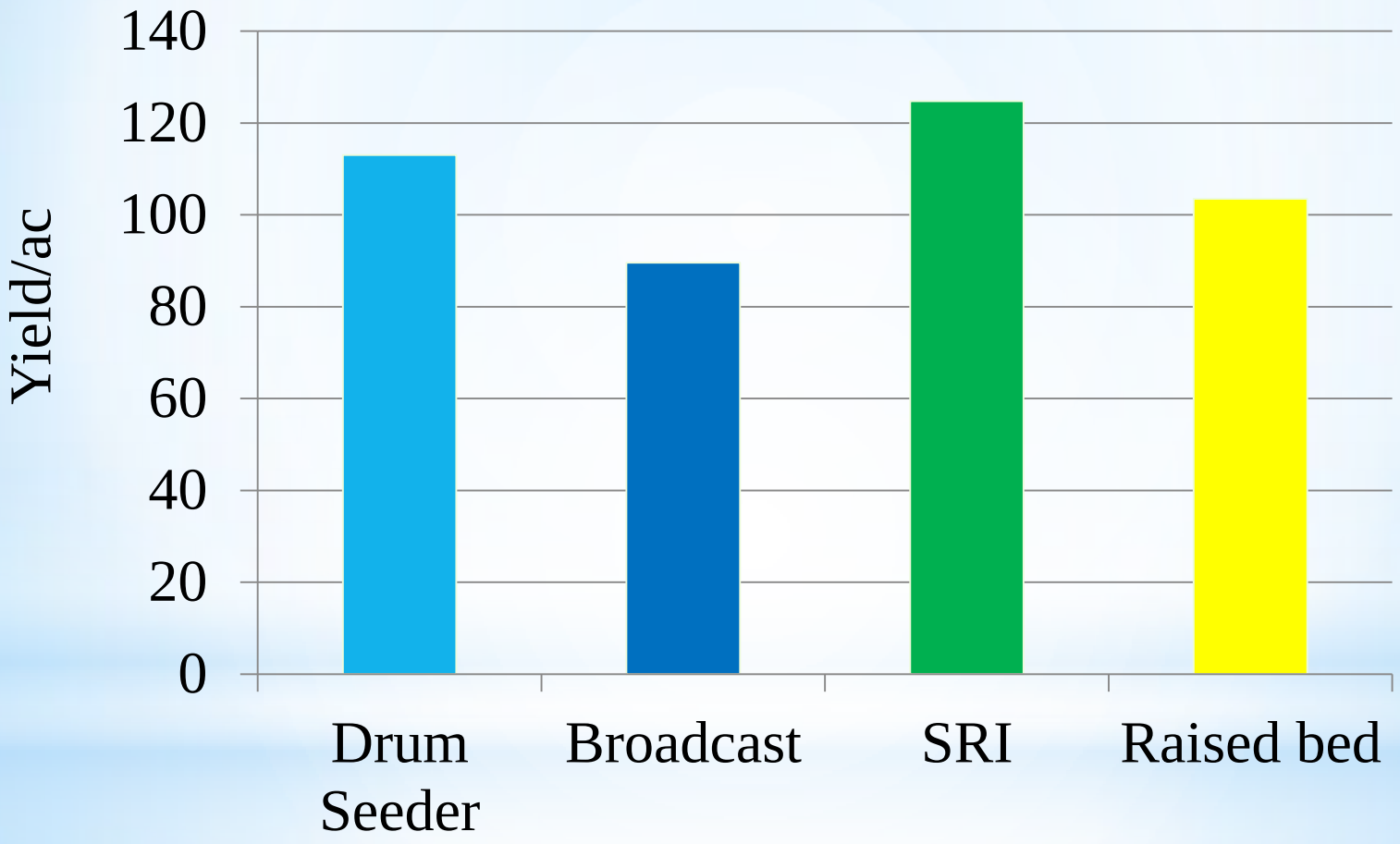
Weakness

- More cost per acre
- Require more labour

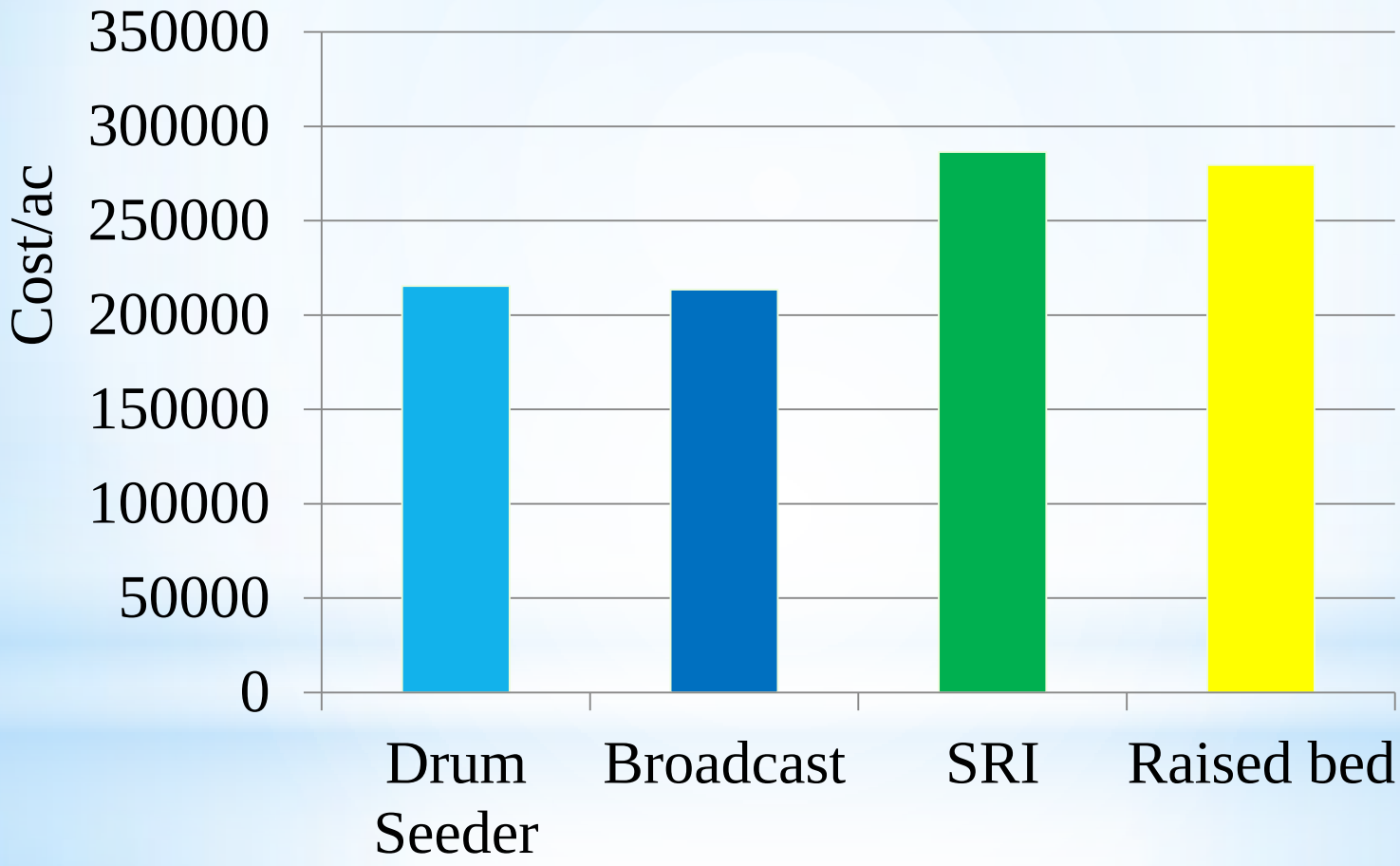
Comparison of Cost and Benefit

Treatment	Cost per acre (ks)	Income per acre (ks)	Price per basket (ks)	Cost per basket (ks)	Cost and income ratio
Direct seeding	215500	565000	5000	1907	1:2.62
Broadcasting	213500	450000	5000	2372	1:2.10
SRI	286500	625000	5000	2296	1:2.18
Raised bed	279500	515000	5000	2714	1:1.84

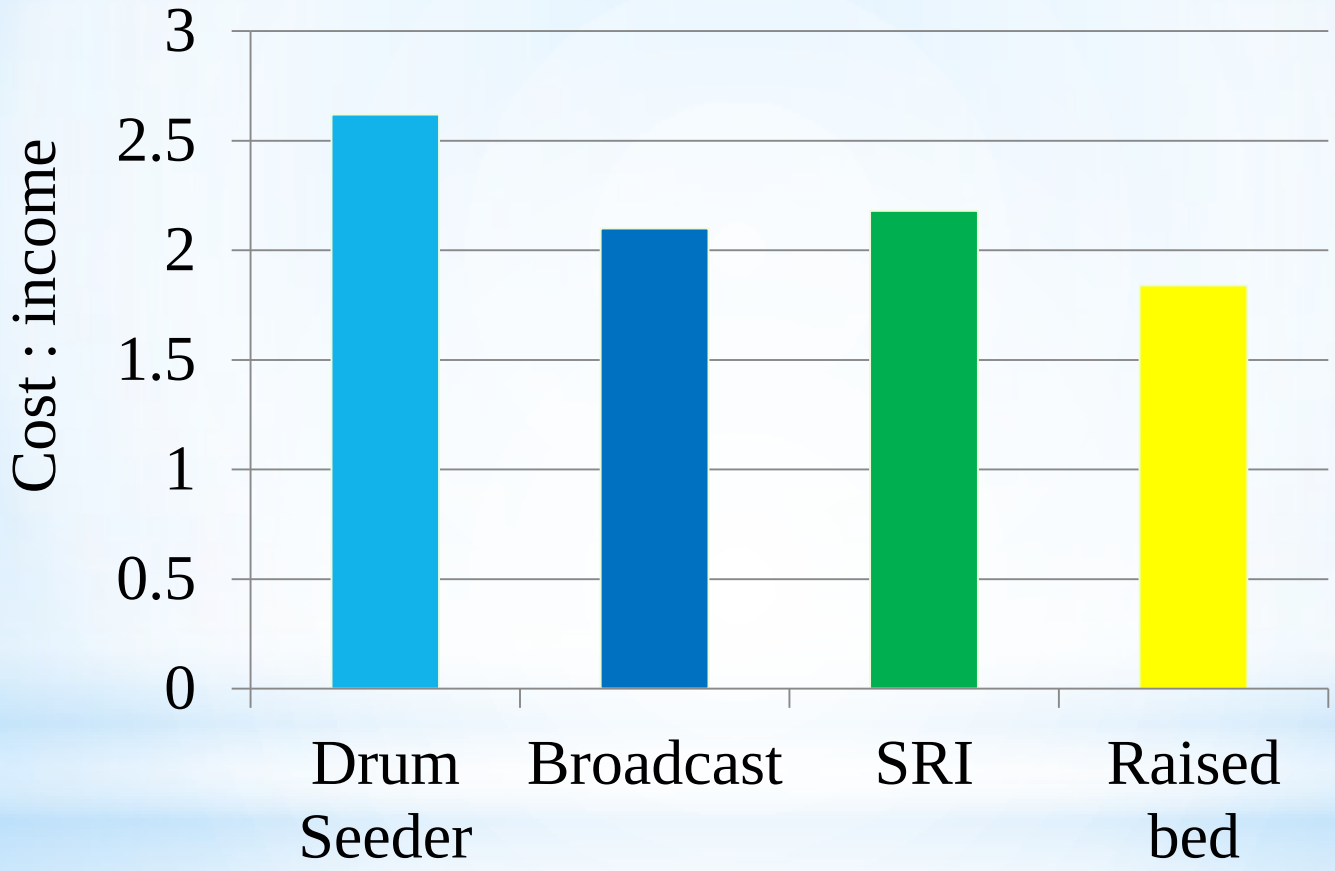
Comparison of yield



Comparison of Cost



Comparison of Benefit



Conclusion

Direct seeding -adaptable to local region because of low cost and high yield

Broadcast -should be used right seed rate and need pest,disease and weed control

SRI - well pudded soil and well leveled to achieve uniform wetting for minimum application of water

- suitable for farmers who have small land holding

Raised bed - need optimum population


Thank you!