January 4, 1992

# Farm Business Management Sparsity Adjustment Recommendation

## I. Concern

Several FBM Instructors in Northern and Northeast Minnesota are employed in areas which have a sparse farm population. As a result of this situation, these instructors are required to travel longer than normal distances in order to make on-farm instructional meetings. In order for the instructors to meet the program standards, they are required to put in longer than normal days to allow for travel time to and from their program enrollees. The area of coverage for these programs often expands to a 50 mile radius in order to contact enough farmers to maintain program standards.

It is also often necessary to drive 30-60 miles to visit the County ASCS, SCS< FmHA, and Extension offices. As a result of these distances, farmers have limited access to these agencies. The time and commitment required to make the necessary contacts or attend meetings hosted by these agencies is beyond the scope of many farmers. The instructor must play a larger than normal role in these situations. Because of the sparsity, these instructors may deal with 3-4 different county offices.

Areas of sparse farm population are often located where marginal land is predominant, and off-farm employment by one of the spouses is becoming more common. The need for outside income in order to maintain a basic standard of living, results in more evening on-farm consultations by the instructor. This again adds to the workload of the program.

The instructors are also required to become more creative in the educational approach, when working in areas of marginal farmland. There are a limited number of farmers in the community and the instructor often works to help develop alternative enterprises on the farm in order to generate additional income. The instructor extends beyond the normal job description to assist the farmer in maintaining a profitable farm.

## II. Concept

In order to maintain the quality and effectiveness of FBM programs located in areas with sparse farm populations, it is necessary to make an adjustment in the work load required of the instructor. The purpose of this adjustment is to place programs located in areas of the state with sparse farm populations on an equal basis with programs located where farm populations are larger. This adjustment will be based on:

- The number of full-time farms located within a given distance of the program base. Source: 1987 U.S. Agriculture Census for Minnesota
- The actual area of each county in Minnesota. Source: Minnesota Data Book, 1985-1986
- Land utilization – the number of 40 acre parcels cultivated, pastured, or open. Source: Minnesota Data Book, 1985-1986

## III. Assumptions

County farm numbers can be compared but the size of each county varies considerably, and the service area of FBM program may cross over more than one county line. Therefore, it is necessary to compare the county farm population on a per square mile basis. The average service area for this proposal is considered to be a 20 mile radius of the program base.

IV. Basic Calculations

On a state-wide basis, approximately 19% of the farms grossing over $50,000 are enrolled in FBM programs. There are 1,256 square miles located in the service area having a 20 mile radius. Using square miles and the 19% average enrollment, there would need to be 220 farms in the program service area. Dividing the number of farms (220) by the square miles in the service area (1256) results in a factor of .175 farms per square mile. The "Sparcity Factor" is recommended to be .175 farms per square mile.

A Land Utilization factor is calculated by using the number of Cultivated, Pastured, or Open 40 acre parcels in each county. A factor of 8 Cultivated, Pastured, or Open 40 acre parcels per square mile is recommended to be used as a minimum level.

V. Recommendation

The recommendation for a sparsity adjustment for FBM programs in Minnesota is as follows:

> "A Sparsity Adjustment will be applied to FBM programs in Minnesota which have their home base located in a county which has a Farm Sparsity factor of less than .175 and a Land Utilization factor of less than 8.0." (These two factors will be adjusted every 5 years, as new census data is published)." Programs receiving this adjustment will be compared as a unit for funding calculations separate from other FBM programs.

VI. Locations

The FBM programs which would be effected by this adjustment are listed here:

| Program | No. of Instructors | No. of FTE's | FY 91 Ratio | # Farms/ County | # Farms/ Sq. Mile | CPO/ Sq. Mile |
|---|---|---|---|---|---|---|
| Duluth TC | 1 | .78 | 10.04 | 47 | .01 | 1.08 |
| Bemidji TC | 2 | 2.46 | 11.44 | 87 | .03 | 2.15 |
| Lake of the Woods | 1 | 1.30 | 10.99 | 40 | .03 | 2.78 |
| Aitkin – B/SRTC | 1 | 1.14 | 6.75 | 77 | .04 | 2.75 |
| Park Rapids | 1 | 1.27 | 9.58 | 47 | .05 | 3.44 |
| Barnum | 1 | 1.23 | 7.58 | 51 | .06 | 3.97 |
| Pine City TC | 2 | 1.92 | 8.28 | 177 | .13 | 4.93 |

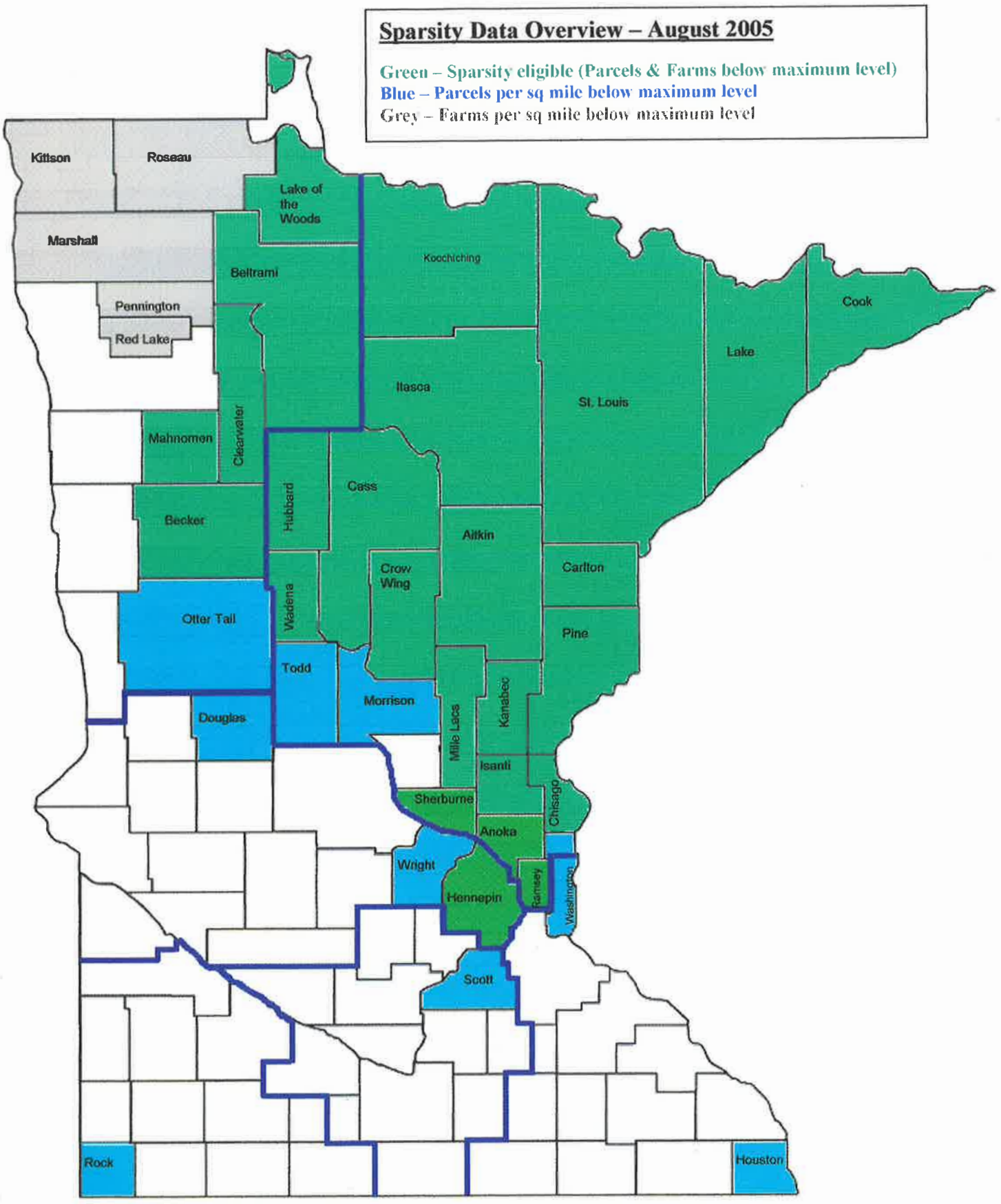
NOTE: The State Average # Farms/square mile if .53 and the State Average CPO/Square mile is 11.50.

VIII. Summary

This proposal will improve the quality of education for programs located in the Sparsity Area because it will allow the instructor to provide instruction time on an equal level with programs in other parts of the state.

This proposal will also allow for equal opportunity for all farmers in the state by insuring that all areas of the state can offer a quality program. Without this adjustment, programs in the sparsity area will not be able to continue on a long term basis.

This proposal also addresses a very unique program. It is the only program where the student must operate a business, the business must be located where adequate acreage is available, the dependence on government agencies is at a high level, and where the instructor must travel to the student in order to provide the education.


Sparsity Data Overview – August 2005
Green – Sparsity eligible (Parcels & Farms below maximum level)
Blue – Parcels per sq mile below maximum level
Grey – Farms per sq mile below maximum level
Kittson
Roseau
Lake of the Woods
Marshall
Beltrami
Koochiching
Cook
Lake
St. Louis
Pennington
Red Lake
Itasca
Clearwater
Mahnomen
Hubbard
Cass
Becker
Aitkin
Crow Wing
Carlton
Wadena
Otter Tail
Pine
Todd
Morrison
Douglas
Mille Lacs
Kanabec
Isanti
Chisago
Sherburne
Anoka
Wright
Hennepin
Ramsey
Washington
Scott
Rock
Houston

## 2002 Census, State - County Data
## Regional Summary

Sparsity Consideration

| Reg # | State/County | Total Cropland | 40 Acre Parcels | Total Square Miles | Parcels per Sq. Mile | Farms > $100K Sales | Farms per Sq. Mile |
|---|---|---|---|---|---|---|---|
| - | Minnesota | 22,729,158 | 568,229 | 79,645 | 7.1 | 18,542 | 0.233 |
| 1 | Northland - NW | 6,154,770 | 153,869 | 18,971 | 8.1 | 2,521 | 0.133 |
| 2 | Central Lakes - NEEC | 1,935,900 | 48,398 | 29,258 | 1.7 | 1,335 | 0.046 |
| 3 | Ridgewater - WC | 4,792,058 | 119,801 | 10,531 | 11.4 | 4,159 | 0.395 |
| 4 | Minnesota West - SW | 4,126,466 | 103,162 | 8,060 | 12.8 | 4,199 | 0.521 |
| 5 | South Central - SC | 2,758,602 | 68,965 | 5,624 | 12.3 | 3,102 | 0.552 |
| 6 | Riverland - SE | 2,961,362 | 74,034 | 7,201 | 10.3 | 3,226 | 0.448 |
| | | 22,729,158 | 568,229 | 79,645 | 7.1 | 18,542 | 0.233 |