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# CAPITALIZATION OF PREPRODUCTIVE PERIOD EXPENSES FOR DAIRY REPLACEMENTS

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The Tax Reform Act of 1986 requires farmers to capitalize (rather than expense) the costs of producing dairy and beef cattle replacements, fruit trees and vines, and other plants that have a preproductive period of more than two years. Capitalization rules take effect with tax years beginning in 1987. The decision on which set of capitalization rules to use this year and in future years must be made before 1987 returns are filed.

The following discussion deals only with the capitalization rules and alternatives affecting dairy and beef producers. The tax implications and management alternatives for fruit growers and nurserymen are also important and require special attention. Temporary regulations explaining most of the capitalization rules have been issued although some are not well defined and will be subjected to different interpretations.

Dairy farmers and cattle producers have little chance of surpassing the two year preproductive period requirement. The temporary regulations [Temp Reg. Sec. 1.263A-1T(c)(4)(ii)(B&C)] define the preproductive period of replacement cattle. "The preproductive period of an animal begins at the time of acquisition, breeding, or embryo implantation." "The preproductive period ends at the time the animal is ready to perform the primary function intended to be performed by that animal." (i.e., when a heifer calves). The General Explanation of the Tax Reform Act of 1986 prepared by the staff of the Joint Committee on Taxation includes the following example: -- *"the preproductive period of a cow to be used for breeding or dairy purposes would begin when the cow is conceived and end when it drops its first calf."*

The intent of Congress was to have the preproductive period begin before birth so that some of the tax shielding advantages previously available to cattle breeders would be eliminated. These included expensing the costs of embryo transplanting, implanting, etc. Unless and until the preproductive period is redefined in final regulations, assume it begins at the date of acquisition for purchased replacements and at the date of the dam's conception for raised replacements.

Dairy and beef cattle producers will find it essentially impossible to be excluded from capitalization by claiming a preproductive period of less than two years. The remaining options are to accept and use one of the approved methods of capitalization or to use the alternative depreciation system for all depreciable assets placed in service beginning with 1987.

Capitalization of Preproductive Period Expenses

A farmer who accepts capitalization will deduct the costs of growing replacement heifers from expenses normally reported on Schedule F, accumulate these costs for the duration of the preproductive period, and recover the capitalized costs through depreciation once the animal begins production. When the animal is sold or removed from the herd, it will be a Section 1245 transaction and the unrecovered capitalized costs become the basis. Gain to the extent of depreciation claimed becomes ordinary income. Additional gain is capital gain without exclusion. Losses are capital losses. Section 1245 gains and losses do not affect self-employment income.

The temporary regulations do not include specific dollar amounts or guidelines that farmers may use to establish costs of production. The capitalization rules "apply to all costs incurred in connection with the production of real and personal tangible property". In other words, the cattle producer is expected to allocate a reasonable percentage of all applicable Schedule F expenditures to the cost of producing replacements. Few if any farmers keep the detailed enterprise records that would enable an

actual accounting of the costs of production and most would be unable to determine reasonable estimates. Fortunately IRS provides two alternative inventory methods.

The temporary regulations permit the use of "the farm price method" and "the unit-livestock method" in establishing the costs of producing dairy or beef cattle replacements. The farm price method is the same as using current market values or prices (e.g., fresh dairy heifers might be priced at $900, bred heifers $600, etc.). Values would vary from year to year with changes in market prices.

The unit-livestock method is based on the average cost of raising an animal in a particular class. The costs assigned may be based on reasonable estimates that approximate the costs of raising replacements to various stages of maturity. This method would be preferred by most farmers if acceptable cost estimates were lower than market values.

The unit-livestock method is currently used by some farmers to value inventories for accrual accounting. When used for inventory valuation, unit prices and classifications are subject to IRS approval upon examination of the farmer's return. Once selected, the classes and values can be changed only with IRS approval.

Cost of Production Guidelines

IRS will not publish specific cost of production estimates that dairy and beef farmers may use to determine preproductive period expenses. Taxpayers electing the unit-livestock method will have to be prepared to defend the numbers they use.

The best evidence will be records that show how much the taxpayer spent and allocated to raising replacements. Our estimates of the Schedule F costs of raising dairy heifers from 0 to 25 months indicate a range of $400 to $800 may be reasonable. Farmers at the low end of this range will be those with little or no hired labor associated with the youngstock enterprise, low

amounts of borrowed capital, little depreciation, and low feed costs. Farmers at the upper end of the range will have hired labor and possibly paid management involved with raising heifers. The high cost enterprise may be supported with a substantial investment in new depreciable assets and borrowed capital.

Once a reasonable estimate of the cost of raising a heifer to freshening age is established, the farmer must select a method of determining the total annual preproductive expenses for the entire youngstock herd. Two methods have been suggested.

1. Divide the total estimated cost of raising a heifer by the average age at freshening (months) to determine the average monthly cost. Multiply the average monthly cost by the number of heifer months for the current year, e.g. $600 ÷ 25 months = $24 x 1,000 heifer months = $24,000. This method is based on the assumption that there is no appreciable difference in the monthly cost of raising heifers in the first and second years.
2. Make different cost estimates for raising heifers to freshening age, to 12 months of age and to 3 months of age. If it costs $600 to raise a heifer to 25 months, $300 to 12 months, and $100 to 3 months, the monthly costs of raising each class can be readily determined, e.g. $600 - $400 = $200 ÷ 14 months = $21.43/month for months 12 through 25, $300 - $100 = $200 ÷ 8 months = $25.00/month for months 4 through 11, etc.

Market Value Guidelines

Taxpayers who elect the farm-price method must rely on market prices less estimated direct costs of disposition to determine preproductive period expenses. IRS suggests using current prices at the nearest livestock market. Average market prices published by the State Crop Reporting Service are likely to be accepted. However, the price of milk cow replacements, (e.g. $860, September 1987), is the only relevant price available. Prices of

yearlings and calves would have to be estimated or determined independently. Direct disposition costs include hauling and commissions.

Additional Problems

Here are several additional problems associated with capitalizing preproductive period expenses:

1. There is no designated line on Schedule F to exclude preproductive period expenses. Adjustments to farm deductions must be made before entering them on Schedule F or a total adjustment must be entered on line 35.
2. It will be difficult for some farmers to determine how many animals to capitalize. To be practical, a replacement animal cannot be inventoried until it is born. Only heifers held for replacements should be counted. Bulls are placed into service in less than 24 months. Heifers raised for sale are excluded from capitalization rules if sold within the 24 month preproduction period.
3. Replacements placed in production during 1987, 1988, and 1989 will have a different basis for cost recovery. Only those born on or after January 1, 1987 will accumulate a full cost basis (e.g. 25 months @ $24 = $600). Animals freshening in 1987 may average six months of accumulated costs. Raised animals placed in production in 1988 may average 18 months.
4. All raised dairy and beef cattle replacements must be placed on the depreciation schedule. DDB MACRS will lead to additional accounting and potential AMT income adjustment. One hundred fifty percent declining balance over ADR midpoint lives is the fastest depreciation allowed for AMT.
5. The Section 179 expensing election is apparently not available for recovering capitalized preproductive period expenses.

Alternative Depreciation

Most farmers may elect out of capitalizing preproductive period expenses by selecting the alternative MACRS depreciation system. The alternative

system requires longer asset lives, straight line depreciation, and affects all depreciable farm assets placed in service starting with 1987. Alternative MACRS can be used for computing AMT. Large corporations, large partnerships, and certain tax shelters already required to use accrual accounting cannot elect out of capitalization.

If a farmer elects to use the alternative system it must be used in all the farming businesses owned by the taxpayer and those owned by his or her spouse and children under age 18. This means that a farmer owning a dairy, cash crop, and poultry business must place all newly acquired depreciable assets on the alternative system if he or she elects not to capitalize. A large crop farmer who owns a small breeding herd must elect to use or not to use it for the entire farming operation, not just the cattle enterprise.

Making the Election

The election must be made in the first year after 1986 that the farmer engages in a farming business. In other words, all current farmers must make their decision to capitalize or use alternative MACRS before the 1987 return is filed. This will be particularly difficult for the farmer who does not have any 1987 expenses subject to capitalization.

The election not to capitalize preproductive period expenses is made by checking the appropriate "yes" box on top of Schedule F or E. If the farmer ignores the election (i.e., fails to answer question G on Schedule F) and does not capitalize preproduction expenses on the 1987 return, he or she will be deemed to have elected out of capitalizing preproductive expenses. The farmer with no current preproductive period property could be inadvertantly locked into alternative MACRS for the rest of his or her farming career. Unless this provision is changed all farmers need to make a well informed decision concerning capitalization on their 1987 returns. Once the election to use the alternative system is made the farmer is locked into it. It is revocable only with the consent of the commissioner.

Farm taxpayers who elect to use alternative MACRS are not exempt from the Section 1245 property rules when they sell raised dairy and breeding livestock. Any gain to the extent of preproductive period costs that would have been capitalized without the election, must be recaptured as ordinary income when the animal is sold. This rule will cause no additional tax liabilities for farmers under the TRA of 1986 unless the 28 percent tax bracket is exceeded in 1987.

After 1987 it will make little difference whether the 1231 gain is subject to recapture or is Schedule D income unless the rules are changed.

Tax Management Implications

Dairy farmers and beef cattle producers currently raising replacement cattle must capitalize the costs of raising these animals or elect to use the alternative MACRS depreciation system starting this year.

Both options cause a substantial delay in cost recovery which produces an increase in taxable income and additional taxes for dairy farm businesses. The option to capitalize the costs of raising heifers results in an additional income and self-employment tax liability spread over a seven year adjustment period. The option to elect the alternative depreciation system produces additional income and social security taxes over an adjustment period of 16 years or more.

The following conditions make the alternative MACRS option appear more favorable:

1. High preproductive period costs per replacement.
2. A relatively high ratio of raised heifers per cow.
3. A relatively low ratio of depreciable assets purchased to annual costs of raising replacements.
4. Combined average tax rate in years 1 and 2 greater than in 3 through 7.
5. Dairy farming is primary farm enterprise.

The following conditions make the capitalization option more favorable:

1. Ratio of depreciable assets purchased to annual costs of raising replacements is high (e.g., low preproductive period costs, low heifer to cow ratios and/or high capital purchases).
2. Combined average tax rates in years 1 and 2 less than in years 3 through 7.
3. Non-dairy enterprises are a substantial part of the farm business.

Animals, including dairy heifers purchased for resale by a farmer with not more than $10 million of gross receipts are not subject to capitalization. The temporary regulations apparently exclude cattle purchased for replacements if they freshen within two years of purchase. This will generate new interest in selling calves and buying replacements as a tax management strategy.

## Appendix I. GUIDELINES FOR ESTIMATING PREPRODUCTIVE PERIOD COSTS OF RAISING DAIRY HEIFERS

### Dairy Heifer Budgets

Dairy heifer budgets developed by the Ohio State Farm Management Faculty (Ohio Enterprise Budgets 1987 MM-391) show total costs of raising a large breed heifer to 24 months equal $1,120 per head. Farm Cost Account data from Cornell University (A.E. Res. 84-18) show average total costs of raising a dairy heifer to 26.1 months equaled $1,067 in 1983. These costs are higher than current market values. The costs included in these budgets include more charges than can be deducted on Schedule F. Total budgeted costs include the value of the calf, operator labor, unpaid family labor, an interest charge for using equity capital, a management charge, rental charges for owned equipment and buildings, and homegrown feed charged at its opportunity value rather than cost of production.

Adjustment can be made in total cost budgets to get reasonable estimates of Schedule F costs. The following assumptions were made for this analysis:

1. Fifty percent of the labor used in raising heifers is unpaid labor and not deductible on Schedule F.
2. Sixty percent of the farm capital is equity capital, 40 percent is borrowed capital.
3. Thirty percent of the charges for equipment and buildings are for ownership charges not deductible on Schedule F.
4. Thirty percent of the value attributed to raised feed is the return to unpaid labor and management and not deductible on Schedule F.
5. The ordinary cost of breeding and feeding the dam during pregnancy should not be charged to the calf when milk production is the dairy farmer's primary reason for breeding the herd. The extra costs of embryo

transplanting, implanting, and buying special semen that add a significant value to the calf should be included.

By eliminating one-half the labor, 60 percent of the interest costs, the charge for the calf, the management fee, 40 percent of the equipment and building charges, and 30 percent of the value attributed to raised feed, $492 can be cut from the Ohio heifer budget leaving $628 (Table 1). A similar procedure applied to the New York Cost Account data leaves a Schedule F cost estimate of $592 per head (Table 2). Farmers with little hired labor, no borrowed capital and very low production costs can cut another $100 to $200 from these estimates. A high proportion of hired labor, low equity, and high production costs could add $200 or more to Schedule F costs. I am suggesting that $400 to $800 represents a reasonable range of estimated costs that a dairy farmer could justify capitalizing under the unit-livestock method.

The farmer who decides to use the unit-livestock method or another method of capitalization will reduce Schedule F expenses accordingly beginning in 1987. A ratio of the total cost estimate divided by average age at freshening (months), times the total number of heifer months for the current year could be used to determine the annual deduction. For example, $600 ÷ 25 months = $24 x 1,000 heifer months = $24,000. The capitalized costs would be recovered through depreciation beginning with the year of freshening and ending five years later or at disposition date. I assumed a half year convention for all heifers the first year in the attached analysis (Appendix II, Option A).

Table 1. 1987 DAIRY HEIFER PRODUCTION BUDGET
Large Breed, Birth to Freshening (24 months), O.S.U.
Adjusted to Represent Schedule F Deductions

| Item | Quantity & Unit | Price | Total Amount | Adjustment | Sch. F. Amount |
|---|---|---|---|---|---|
| Raised Feed: | | | | | |
| Corn equivalent | 41 bu | $1.60 | $ 66 | | |
| Hay equivalent | 3.45 tn | 70 | 242 | | |
| Corn silage | 6 tn | 13 | 76 | | |
| | | | $384 | -30% | $269 |
| Purchased feed (various) | | | 69 | | 69 |
| Vet & medicine | | | 21 | | 21 |
| Breeding & registration | | | 25 | | 25 |
| Utilities | | | 17 | | 17 |
| Bedding | | | 50 | | 50 |
| Miscellaneous & supplies | | | 16 | | 16 |
| Interest on operating capital, 10% | | | 61 | -60% | 24 |
| Heifer calf | | | 100 | -100% | 0 |
| Labor charge | 30 hrs | $5.00 | 150 | -50% | 75 |
| Interest & insurance ($3) on heifer | | | 78 | -$75 | 3 |
| Equipment charge | | | 19 | -50% | 11 |
| Building charge | | | 80 | -40% | 48 |
| Management charge | | | 49 | -100% | 0 |
| | | | $1,120 | | $628 |

Table 2. COSTS PER HEIFER EQUIVALENT (26 MONTHS), 1983
19 Cost Account Farms, Cornell University
Adjusted to Represent Schedule F Deductions

| Item | Price | Total Amount | Adjustment | Sch. F Amount |
|---|---|---|---|---|
| Value of calf at birth | | $ 105 | -100% | $ 0 |
| Raised feed: | | | | |
| Hay equivalent 1.9 tn | $66 | 126 | -30% | 88 |
| Corn silage 6.0 tn | 24 | 145 | -50% | 73 |
| Pasture | | 54 | -100% | 0 |
| High moisture corn & other | | 20 | -30% | 14 |
| Purchased feed | | 150 | | 150 |
| Labor 23 hrs. | | 150 | -50% | 75 |
| Tractor, truck & equipment | | 55 | -40% | 33 |
| Bedding | | 16 | | 16 |
| Breeding | | 16 | | 16 |
| Vet & medicine | | 11 | | 11 |
| Utilities | | 7 | | 7 |
| Insurance | | 6 | | 6 |
| Interest | | 70 | -60% | 28 |
| Building use | | 67 | -40% | 40 |
| All other | | 69 | -50% | 35 |
| | | $1,067 | | $592 |

The net effect of capitalization is a considerable slow down or delay in cost recovery compared to the pre-1987 practice of claiming all preproductive period expenses on Schedule F. My analysis (Appendix II, Option A) indicates that a dairy farmer raising approximately 40 replacement heifers annually (125 cow dairy herd) stands to lose more than $67,000 in tax deductions over the next seven years. If he/she is in the 0.33 combined marginal tax bracket, the present value (0.09 discount rate) of additional taxes would be about $18,200 over the seven years. The analysis uses the unit-livestock method and $600 preproductive period costs per head. It assumes the farmer would have used rapid MACRS depreciation starting in 1987 if capitalization were not in effect. More than 63 percent of the loss in tax deductions occurs in the first five years. Culling and the effect different rates of culling will have on the recovery of capitalized expenses has not been included in this analysis. Culling will speed up the recovery of capitalized expenses and reduce the losses shown in the analysis. If one assumes that on the average all replacements are culled in their fourth production year, the present value of additional taxes would be reduced to approximately $17,550.

Table 3, Worksheet For Estimating Annual Preproductive Period Costs of Raising Dairy Heifers, may be used by dairy farmers who select the unit-of-livestock method for estimating preproductive period expenses. The worksheet is designed to estimate the total annual costs associated with the youngstock herd and the average cost per heifer month.

Table 3. WORKSHEET FOR ESTIMATING ANNUAL PREPRODUCTIVE PERIOD COSTS OF RAISING DAIRY HEIFERS

| Item | Estimation Guide | Cost Estimate |
|---|---|---|
| Hired Labor - youngstock chores | ____ hrs/wk x $____/hr x ____ wks = | $_____ |
| Purchased Feeds | | |
| Milk replacer | ____ units x $____/unit = | _____ |
| Concentrates | ____ units x $____/unit = | _____ |
| Minerals & vitamins | ____ units x $____/unit = | _____ |
| Raised Feed | | |
| Roughage | ____ ton hay equiv. x $____/tn = (2 ton average requirement. Use estimated costs of production or market price less mark up.) | _____ |
| Corn grain | ____ bu. or tn. x $____/unit = (use est. cost of prod. or discounted market price) | _____ |
| Other Direct Costs | | |
| Bedding | ____ tn. x $____/tn. = | _____ |
| Breeding | ____ no. bred x $____ = | _____ |
| Vet & medicine | ____ no. heifers x $____/heifer = | _____ |
| Insurance | ____ no. heifers x $____/heifer = | _____ |
| Building repairs; include heifer buildings only | | _____ |
| Calf at birth; include special breeding costs that are reflected in value of calf | | _____ |
| Indirect Costs - to allocate | | |
| Interest | $____ total x ____% = | _____ |
| Utilities | $____ total x ____% = | _____ |
| Taxes | $____ total x ____% = | _____ |
| Ins. (fire & liab.) | $____ total x ____% = | _____ |
| Other machinery (not associated with crop prod.) | $____ total x ____% = | _____ |
| Miscellaneous; | $____ total x ____% = | _____ |
| Depreciation; include estimate for heifer facilities and equipment. Include field equipment in cost of raised feed. | | _____ |
| TOTAL ESTIMATED COSTS | | $_____ |
| Total costs $____ ÷ ____ heifer months* = cost/month | | $_____ |

* Total months for all heifers in herd this year.

Appendix II. CAPITALIZATION VS. ALTERNATIVE DEPRECIATION EXAMPLE

Making the election to place all newly acquired depreciable assets on alternative MACRS rather than rapid MACRS results in a substantial slow down in depreciation. Alternative MACRS requires 10 years for recovery of machinery and equipment, seven years for purchased dairy and breeding cattle, 15 years for single purpose livestock structures, 25 years for general purpose farm buildings, and only straight line depreciation may be used. Rapid MACRS allows seven years on machinery, equipment and livestock structures, five years on cattle, and accelerated depreciation. Most of the slow down occurs in the first 11 years and is not recouped until the final 10 business years or until the depreciable assets are sold.

My estimates (Option B) show that a 125 cow dairy acquiring $25,000 of depreciable assets annually will lose approximately $75,000 of depreciation during the first 16 years. The largest losses occur in years three through seven. The net present value of the additional tax liability at an average tax rate of 0.33 and discount rate of 0.09 is approximately $15,400 over the 16 year period.

The "typical" 125 cow dairy farm with a combined marginal tax rate of 33 percent will pay less taxes over the next 16 years by electing to use alternative MACRS rather than capitalizing preproductive period expenses. A 20 percent increase in annual investments of depreciable assets in relation to annual preproductive costs, would eliminate the tax saving advantage of alternative MACRS.

The best or least cost option is the one with the smallest present value (cost) of additional taxes. The alternative MACRS option meets this criteria with a present value of $15,381 versus $18,183 for capitalization.

Preliminary estimates indicate that the alternative MACRS election may be the best economic option for dairy farmers and cattle producers whose annual investment in depreciable farm assets does not exceed 125 percent of

the annual preproductive costs of raising replacements. This "break even" ratio was obtained by increasing the annual purchase of depreciable assets to $30,000 and leaving all other variables and conditions unchanged. Most specialized dairy and beef farms would not exceed this ratio. Many large diversified farms may exceed this ratio and find it advantageous to capitalize.

Determining the "best" option is not limited to comparing the losses in farm deductions and resulting increases in taxable income. One must consider the additional records and calculations required to compute preproductive expenses and the prospects of being locked into ADS forever if elected.

Option 1. Capitalize Costs of Raising Replacements

Assumptions and Conditions:

1. 125 cow dairy farmer raising 40 replacements annually.
2. Preproductive period expense = $24 per heifer month ($600/25 months).
3. 1,000 heifer months per year (80 one and two year olds @ 12 months plus 40 calf months)
4. Five year MACRS depreciation for heifers, mid-year convention first year, 40 heifers per year.
5. Basis for depreciation: year 1 $5,760 (40 x 6 months x $24), year 2 $17,280 (40 x 18 months x $24), year 3 and over $24,000.
6. MACRS percentages: .20 year 1, .32 year 2, .19 year 3, .12 years 4 and 5, .05 year 6. (See Depreciation Schedule, Table 1b).
7. .33 combined average tax bracket (.15 federal, .13 social security, .05 state).
8. .09 average cost of capital.

Table 4. INCREASE IN SCHEDULE F INCOME AND ADDITIONAL TAX ASSOCIATED WITH CAPITALIZATION OF PREPRODUCTIVE PERIOD COSTS

| Year | Schedule F expense reduction | Deprec. added* | Net increase in Sch. F. inc. | Additional tax @ .33 | NPV @ .09 |
|---|---|---|---|---|---|
| 1 1987 | $24,000 | $ 1,152 | $22,848 | $ 7,540 | $ 6,917 |
| 2 1988 | 24,000 | 5,299 | 18,701 | 6,171 | 5,164 |
| 3 1989 | 24,000 | 11,424 | 12,576 | 4,150 | 3,195 |
| 4 1990 | 24,000 | 16,512 | 7,424 | 2,450 | 1,740 |
| 5 1991 | 24,000 | 20,035 | 3,965 | 1,308 | 850 |
| 6 1992 | 24,000 | 22,579 | 1,421 | 469 | 281 |
| 7 1993 | 24,000 | 23,799 | 201 | 66 | 36 |
| 8 1994 | 24,000 | 24,000 | 0 | -- | -- |
| | | | $67,136 | $22,155 | $18,183 |

*The effect of culling has been excluded. Although culling will reduce Schedule F depreciation, it will speed up the recovery of capitalized expenditures. If one assumes that on the average all replacements are culled in their fourth production year, additional taxes will be reduced by about $1,000 and the NPV will be reduced by $650.

Table 5. DEPRECIATION SCHEDULE, 40 REPLACEMENTS PER YEAR $600 BASIS*, 5-YEAR MACRS, MIDYEAR CONVENTION

| Year | Cost Basis | Annual Depreciation Deductions: 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | $ 5,760 | $1,152 | $1,843 | $1,094 | $ 749 | $ 749 | $ 173 | | |
| 2 | 17,280 | | 3,456 | 5,530 | 3,283 | 2,246 | 2,246 | $ 519 | |
| 3 | 24,000 | | | 4,800 | 7,680 | 4,560 | 3,120 | 3,120 | $ 720 |
| 4 | 24,000 | | | | 4,800 | 7,680 | 4,560 | 3,120 | 3,120 |
| 5 | 24,000 | | | | | 4,800 | 7,680 | 4,560 | 3,120 |
| 6 | 24,000 | | | | | | 4,800 | 7,680 | 4,560 |
| 7 | 24,000 | | | | | | | 4,800 | 7,680 |
| 8 | 24,000 | | | | | | | | 4,800 |
| | $1,152 | $1,152 | $5,299 | $11,424 | $16,512 | $20,035 | $22,579 | $23,799 | $24,000 |

*$144 basis ($24 x 6 months) for 40 head placed in service 1987.
$432 basis ($24 x 18 months) for 40 head placed in service 1988.
$600 basis ($24/month x 25 months) for all animals born after 1986 and placed in service after 1988.

Option 2. Elect to Use Alternative MACRS Depreciation for Depreciable Assets

Assumptions and Conditions:

1. The election requires straight line depreciation and longer lives.

2. MACRS accelerated depreciation would be used for depreciable assets purchased after January 1987 if the alternative were not elected.

3. Annual cost of depreciable assets (average of 54 dairy farms 100-149 cows, 1985 New York State Dairy Farm Business Summary) and recovery periods:

| | Basis | MACRS | ADS |
|---|---|---|---|
| Dairy cows | $ 2,500 | 5 years | 7 years |
| Machinery and equipment | 15,000 | 7 years | 10 years |
| Single purpose structures | 7,500 | 7 years | 15 years |
| Total | $25,000 | | |

4. Annual depreciation schedules used for MACRS and Alternative MACRS are shown in table 2b. Rates used for MACRS are indicated. Total depreciation for the 16 year planning period are shown in Tables 6 and 7.

5. Single purpose livestock structures require 15 years under Alternative MACRS, therefore, a 16 year planning period was selected.

6. See option #1 for explanation of tax rate and discount rate.

Table 6. LOSS OF DEPRECIATION AND ADDITIONAL TAX ASSOCIATED WITH ALTERNATIVE MACRS ELECTION, 100 COW DAIRY FARM

| Year | MACRS Deprec. | Alt. MACRS Deprec. | Net increase Sch. F. Income | Additional tax @ .33 | NPV @ .09 |
|---|---|---|---|---|---|
| 1 | $ 3,650 | $ 1,179 | $ 2,471 | $ 815 | $ 748 |
| 2 | 10,075 | 3,536 | 6,539 | 2,158 | 1,813 |
| 3 | 14,375 | 5,893 | 8,482 | 2,799 | 2,155 |
| 4 | 17,600 | 8,250 | 9,350 | 3,086 | 2,191 |
| 5 | 19,950 | 10,607 | 9,343 | 3,083 | 2,004 |
| 6 | 22,125 | 12,964 | 9,161 | 3,023 | 1,814 |
| 7 | 24,100 | 15,321 | 8,779 | 2,897 | 1,593 |
| 8 | 25,000 | 17,500 | 7,500 | 2,475 | 1,238 |
| 9 | 25,000 | 19,500 | 5,500 | 1,815 | 835 |
| 10 | 25,000 | 21,500 | 3,500 | 1,155 | 485 |
| 11 | 25,000 | 22,750 | 2,250 | 743 | 282 |
| 12-16* | 125,000 | 122,750 | 2,250 | 743 | 223 |
| Total | $336,875 | $261,750 | $75,125 | $24,792 | $15,381 |

*Alternative depreciation reaches $25,000 in year 16.

Table 7. DEPRECIATION SCHEDULE MACRS AND ALTERNATIVE MACRS
$25,000 DEPRECIABLE FARM ASSETS

| | MACRS | | | Alternative MACRS (S.L.) | | | |
|---|---|---|---|---|---|---|---|
| Year | 5 year $2,500 basis | 7 year $22,500 basis | Total MACRS | 7 year $2,500 basis | 10 year $15,000 basis | 15 year $7,500 basis | Total ALT. |
| | (rate) ($) | (rate) ($) | ($) | ($) | ($) | ($) | ($) |
| 1 | .20-500 | .14-3,150 | 3,650 | 179 | 750 | 250 | 1,179 |
| 2 | .32-800 | .25-5,625 | 6,425 | 357 | 1,500 | 500 | 2,357 |
| 3 | .19-475 | .17-3,825 | 4,300 | 357 | 1,500 | 500 | 2,357 |
| 4 | .12-300 | .13-2,925 | 3,225 | 357 | 1,500 | 500 | 2,357 |
| 5 | .12-300 | .09-2,025 | 2,325 | 357 | 1,500 | 500 | 2,357 |
| 6 | .05-125 | .09-2,025 | 2,150 | 357 | 1,500 | 500 | 2,357 |
| 7 | | .09-2,025 | 2,025 | 357 | 1,500 | 500 | 2,357 |
| 8 | | .04-900 | 900 | 179 | 1,500 | 500 | 2,179 |
| 9 | | | | | 1,500 | 500 | 2,000 |
| 10 | | | | | 1,500 | 500 | 2,000 |
| 11 | | | | | 750 | 500 | 1,250 |
| 12 | | | | | | 500 | 500 |
| 13 | | | | | | 500 | 500 |
| 14 | | | | | | 500 | 500 |
| 15 | | | | | | 500 | 500 |
| 16 | | | | | | 250 | 250 |

Table 8. MACRS DEPRECIATION, 16 YEARS
$25,000 DEPRECIABLE ASSETS PER YEAR

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | $3,650 | | | | | | | | $ 3,650 |
| 2 | 6,425 | $3,650 | | | | | | | 10,075 |
| 3 | 4,300 | 6,425 | $3,650 | | | | | | 14,375 |
| 4 | 3,250 | 4,300 | 6,425 | $3,650 | | | | | 17,625 |
| 5 | 2,350 | 3,250 | 4,300 | 6,425 | $3,650 | | | | 19,975 |
| 6 | 2,100 | 2,350 | 3,250 | 4,300 | 6,425 | $3,650 | | | 22,075 |
| 7 | 2,025 | 2,100 | 2,350 | 3,250 | 4,300 | 6,425 | $3,650 | | 24,100 |
| 8 | 900 | 2,025 | 2,100 | 2,350 | 3,250 | 4,300 | 6,425 | $3,650 | 25,000 |
| 9-16 | (same as year 8) | | | | | | | | |

Table 9. ALTERNATIVE MACRS DEPRECIATION, 16 YEARS
$25,000 DEPRECIABLE ASSETS PER YEAR

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | $1,179 | | | | | | | | | | | $ 1,179 |
| 2 | 2,357 | $1,179 | | | | | | | | | | 3,536 |
| 3 | 2,357 | 2,357 | $1,179 | | | | | | | | | 5,893 |
| 4 | 2,357 | 2,357 | 2,357 | $1,179 | | | | | | | | 8,250 |
| 5 | 2,357 | 2,357 | 2,357 | 2,357 | $1,179 | | | | | | | 10,607 |
| 6 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | $1,179 | | | | | | 12,964 |
| 7 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | $1,179 | | | | | 15,321 |
| 8 | 2,179 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | $1,179 | | | | 17,500 |
| 9 | 2,000 | 2,179 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | $1,179 | | | 19,500 |
| 10 | 2,000 | 2,000 | 2,179 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | $1,179 | | 21,500 |
| 11 | 1,250 | 2,000 | 2,000 | 2,179 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | 2,357 | $1,179 | 22,750 |
| 12-16 | (year 12 = $23,250, 13 = $23,750, 14 = $24,150, 15 = $24,750, 16 = $25,000) = | | | | | | | | | | | $122,750 |