SEGREGATING FERTILITY COSTS

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Tax rules require the purchase price of land to be allocated among the land and the various assets that are purchased with the land, such as fences, wells, roads, buildings, and timber. With the increases in the price of farmland and the cost of fertilizer, some buyers of farmland are allocating part of the purchase price of the land to fertilizer that was applied to the land before the purchase. Similarly, some taxpayers are allocating part of the date-of-death FMV of farmland to fertilizer that was applied to the land before the decedent's death. That allocation allows them to deduct the cost of the fertilizer instead of including that portion of the purchase price or date-of-death basis in the nondepreciable basis of the land.

Practitioner Note

Land Acquired by Gift

Taxpayers who acquire land by gift cannot argue that part of the value of the gift is allocated to the basis of the fertilizer purchased with the land because the donee's basis in assets is a carryover basis from the donor. Because the donor deducted the cost of the fertilizer in most cases, the donor's basis in the fertilizer is zero and that zero basis carries over to the donee.

This issue reviews the tax rules that require buyers and sellers to allocate the purchase price of a group of assets and applies those rules to fertilizer acquired with purchased or inherited farmland.

Background

As background for the discussion of allocating purchase price to land and fertilizer, the rules for determining the basis of assets; the rules for allocating the purchase price of a group of assets; and the rules for deducting the cost of fertilizer are summarized in this section.

Unadjusted Basis of Assets

A taxpayer's beginning (unadjusted) income tax basis in an asset is determined by one or more of several rules. The unadjusted basis of a purchased asset is the asset's cost [I.R.C. § 1012(a)]. The unadjusted basis of an inherited asset is generally the asset's FMV on the decedent's date of death or the alternate valuation date [I.R.C. § 1014(a)]. The unadjusted basis of an asset acquired by gift is generally the donor's basis in the asset [I.R.C. § 1015(a)].

If a taxpayer acquires an asset in a transaction that qualifies for deferring the recognition of gain, the unadjusted basis is transferred from another asset. Examples of those transactions include like-kind exchanges [I.R.C. § 1031(d)], involuntary conversions [I.R.C. § 1033(b)], tax-free incorporations [I.R.C. §§ 358 and 362], and contributions of property to a partnership [I.R.C. §§ 722 and 723].

Cost Allocation Rules

I.R.C. § 1060 requires taxpayers who buy a group of assets that constitute a trade or business to use a residual method to allocate the purchase price among the assets. Treas. Reg. § 1.1060-1(b)(2)(i) says a group of assets constitutes a trade or business if

1. the use of such assets constitutes a trade or business, or
2. goodwill or going concern value could attach to the group of assets.

Sellers must follow the same allocation rules to report their gain or loss on the sale of a group of assets that constitutes a trade or business.

Seven Asset Classes

The IRS implements I.R.C. § 1060 by requiring both the buyer and the seller to allocate the purchase price on Form 8594, Asset Acquisition Statement Under Section 1060. That form allocates the purchase price (plus transaction costs for the purchaser and minus transaction costs for the seller) to the following seven classes of assets:

Class I

Cash
General deposit accounts (including savings and checking accounts but excluding certificates of deposit)

Class II

Certificates of deposit
U.S. government securities
Foreign currency
Personal property, including stock and securities, that is actively traded on an established financial market

Class III

Accounts receivable
Other debt instruments, excluding related-party debt instruments, contingent debt instruments, and debt instruments that are convertible into stock or other property
Assets that are marked-to-market annually for federal income tax purposes

Class IV

Property properly includable in inventory
Property held primarily for sale to customers in the ordinary course of business

Class V

Furniture and fixtures
Equipment that is part of the business
Buildings and land
Vehicles
Any other assets that are not included in any of the other six classes

Class VI

Workforce in place
Books and records, operating systems, and other information bases
Patents, copyrights, formulas, processes, designs, know-how, format, and similar items
Customer-based intangibles
Supplier-based intangibles
Licenses, permits, and other rights granted by a government agency
Covenants not to compete
Franchises, trademarks, and trade names
Any other I.R.C. § 197 intangibles other than goodwill and going-concern value

Class VII

Goodwill (reputation and good standing)
Going-concern value (the ability to conduct business in the future)

Descending Order of Allocations

The purchase price is first allocated to assets in Class I to the extent of the FMV of the assets in that class. The remaining purchase price is then allocated to the assets in Class II to the extent of the FMV of the assets in that class. This process is repeated until the remaining purchase price is less than the sum of the FMVs of the assets in the next class. At that point, the remaining purchase price is allocated among the assets in that class according to their FMVs. If the purchase price exceeds the FMV of all assets in Classes I through VI, the remainder is allocated to assets in Class VII.

Sale of Farmland

Most sales of farmland are not subject to the I.R.C. § 1060 allocation rules because the land is not purchased with a group of assets that constitute a trade or business. Thus, the buyer and the seller do not have to file Form 8594 to report an allocation of the purchase price. However, the buyer must allocate the purchase price to determine his or her basis in the land and each depreciable improvement [Treas. Reg. § 1.167(a)-5], and the seller must allocate the purchase price to determine his or her gain on the land and each improvement [I.R.C. § 1.61-6(a)]. The parties can choose to use the residual method of allocating the purchase price even if I.R.C. § 1060 does not require them to use it.

Adverse Interests

If the parties to a transaction have adverse interests, deal at arm's length, and agree to an allocation of the purchase price among the assets purchased in a group, courts generally will honor that allocation if there is no reason to question the bona fides of the transaction. [*Blackwell Industries, Inc. v. Commissioner*, T.C. Memo. 1979-61]. IRS Publication 225, *Farmer's Tax Guide* (2013), at page 32 states that an allocation agreed upon by a buyer and a seller will generally be accepted (by the IRS) if it is based on the value of each asset and the buyer and seller have adverse tax interests.

In most cases, unrelated buyers and sellers have adverse interests because the buyer wants to allocate as much of the purchase price as possible to depreciable or deductible assets. The seller wants to allocate as little as possible to those assets because gain on those assets is generally taxed as ordinary income. The seller wants to allocate as much as possible to the land because the gain on land is taxed as capital gain, but the buyer wants to allocate as little as possible to the land because basis in land cannot be depreciated.

Example 1. Allocation of Purchase Price Among Assets

Hominy Gritts paid $80,000 to buy a farm from an unrelated party. Neither Hominy nor the seller has to file Form 8594 or use the residual method of allocating the purchase price among the assets purchased because the farm is not a trade or business. As shown in **Figure 1**, the sum of the FMVs of the parcels of land and the improvements included in the assets is $100,000. Therefore, Hominy can prorate the $80,000 purchase price among the parcels and improvements using the ratio of the FMV of each parcel or improvement to $100,000.

FIGURE 1. Allocation of Purchase Price to Assets

Asset	FMV	Percent of FMV	Allocated Purchase Price
Tillable land	$ 65,000	65%	$52,000
Barn	5,000	5%	4,000
Fences	2,000	2%	1,600
Timber land	13,000	13%	10,400
Standing timber	15,000	15%	12,000
Total	$100,000	100%	$80,000

If Hominy paid $120,000 for the farm the $120,000 purchase price would be allocated among the parcels and improvements in the same manner as the $80,000 purchase price, which will result in a basis equal to 120% of the FMV of each of the parcels of land and improvements. No amount is allocable to goodwill or going concern value because Hominy did not buy a trade or business.

Deducting the Cost of Fertilizer

I.R.C. § 180 allows farmers to elect to deduct the cost of "fertilizer, lime, ground limestone, marl, or other materials to enrich, neutralize, or condition land used for farming." If a farmer does not make this election, the cost of the fertilizer or other material is amortized over the useful life of the material. Famers make the election simply by deducting the cost of the fertilizer or other material on their income tax return.

Treas. Reg. § 1.180-1(b) refers to Treas. Reg. § 1.175-3 for the definition of *farmer* for purposes of I.R.C. § 180. Treas. Reg. § 1.175-3 says a taxpayer is in the business of farming if he or she cultivates, operates, or manages a farm for gain or profit, either as owner or tenant. It also treats a landowner who receives rent either in cash or as a share of the crop as a farmer if the rent is based on farm production. However, a taxpayer who receives a fixed rent without reference to production is engaged in the business of farming only if he or she participates to a material extent in the operation or management of the farm.

The I.R.C. § 180 election to deduct fertilizer expenses is effective for only 1 year, but once made, the election for the tax year can be revoked only with the consent of the IRS [Treas. Reg. § 1.180-2].

Allocating Cost to Fertilizer or Nutrients

If taxpayers can show that fertilizer or nutrients already applied to the land are a separate asset that can be distinguished from the soil, they can allocate part of the purchase price of farmland to fertilizer or nutrients that are in the soil at the time of purchase. Similarly, heirs and beneficiaries can adjust the basis in fertilizer or nutrients on land they inherit or receive as a bequest to the date-of-death (or alternate valuation date) value. However, the taxpayer has the burden of proving the existence and FMV of the fertilizer or nutrients.

Residual Fertilizer Supply

In IRS Technical Advice Memo. (T.A.M.) 1992-11-007 (December 3, 1991), the taxpayer was a corporation owned by A and B. The corporation purchased the buildings, irrigators, pumps, wells, grain bins, and "residual fertilizer supply" on land A and B purchased in their individual names and leased to the corporation on a 1-year lease that automatically renewed each year unless either party notified the other party that it wanted to terminate the lease. The corporation amortized the amount allocated to the residual fertilizer supply over 7 years.

The T.A.M. concluded that the corporation could not amortize the cost of the fertilizer because Aand B, not the corporation, were the beneficial owners of the fertilizer [*Helvering v. F. & R. Lazarus & Co*., 308 U.S. 252 (1939)].

Practitioner Note

T.A.M .Is Authority Only for Penalty Relief

The IRS Office of Chief Counsel issues a T.A.M.to respond to a specific closed transaction involving a specific taxpayer, and the T.A.M.'s holding is not binding on the IRS in cases involving other taxpayers. Thus, other taxpayers cannot rely on a T.A.M. even if their situations appear to be are identical. The authorities cited in the T.A.M. can be cited as precedents, however.

I.R.C. § 6110 (k)(3) states that "Unless the Secretary otherwise establishes by regulations, a written determination may not be used or cited as precedent." Treas. Reg. § 1.6662-4(d)(3)(iii) provides that private letter rulings and technical advice memoranda issued after October 31, 1976, are authority for purposes of determining whether there is substantial authority for the tax treatment of an item shown on a tax return. Having substantial authority enables a taxpayer to avoid the accuracy-related penalty if the IRS challenges the position taken on the tax return.

Additional Requirements from T.A.M. 1992-11-007

Although T.A.M. 1992-11-007 denied the corporation the amortization deductions because it was not the beneficial owner of the fertilizer, it went on to say that in order to amortize the cost of fertilizer acquired with land, the taxpayer must

1. establish the presence and extent of the fertilizer;
2. show the level of soil fertility attributable to fertilizer applied by the previous owner;
3. provide a basis upon which to measure the increase in fertility in the land; and
4. provide evidence indicating the period over which the fertility attributable to the residual fertilizer will be exhausted.

If the T.A.M. is an indication of current IRS thinking about fertilizer purchased with land, then it appears that under the right set of facts, the IRS will allow a purchaser of land to allocate part of the purchase price to the residual fertilizer supply acquired with the land and amortize that cost over the period the fertility attributable to that residual fertilizer will be exhausted.

Example 2. Fall Application of Fertilizer

Bernadine Chavas applied $15,000 of fertilizer to 100 acres of her farmland in the fall of 2013 to prepare her land for the corn crop she intended to plant in 2014, and she deducted the $15,000 on her 2013 Schedule F (Form 1040). Bernadine's plans changed and she sold the 100 acres to Frederick Schmidt in February 2014 for $520,000. In the sales contract, Bernadine and Frederick agreed that $483,000 of the purchase price was for the unimproved farmland, $22,000 was for tile line, and $15,000 was for the fertilizer Bernadine had applied in 2013. Because Bernadine had applied the fertilizer, Frederick did not apply fertilizer that he otherwise would have applied for his 2014 corn crop on the 100 acres.

The IRS is likely to agree that Frederick can allocate $15,000 of the purchase price to the fertilizer Bernadine applied in the fall of 2013. If Frederick can show the rate the residual fertilizer supply is exhausted, the IRS is likely to allow him to amortize the $15,000 over the period it is exhausted.

The taxpayer in T.A.M. 1992-11-007 amortized the cost of the residual fertilizer supply over 7 years and therefore the T.A.M. does not discuss claiming a deduction for the residual fertilizer supply under I.R.C. § 180. On its face, I.R.C. § 180 appears to allow Frederick to deduct the $15,000 on his 2014 income tax return because it does not limit the deduction to fertilizer applied by the taxpayer. I.R.C. § 180(a) allows a taxpayer to deduct expenses "paid or incurred by him" during the tax year for "the purchase or acquisition of fertilizer. . ."

Practitioner Note

Period of Exhaustion

If Frederick deducts the $15,000 on his 2014 income tax return under I.R.C. § 180, he should not have to provide evidence indicating the period over which the fertility attributable to the residual fertilizer will be exhausted because he is not amortizing the cost over that period. I.R.C. § 180 does not require a taxpayer to show that fertilizer or other material is exhausted.

Bernadine must report the $15,000 sale of fertilizer as the sale of an input with a zero basis that results in $15,000 of ordinary income.

Practitioner Note

State Reporting Requirements

Although Bernadine and Frederick are not required to agree on an allocation of the $520,000 purchase price or file Form 8594, most states require buyers and sellers of real property to report the transaction and identify the parties to the transaction. Therefore, the IRS and the state tax authority can identify the other party to the transaction and compare the allocations of the purchase price. If the buyer and seller made the same allocation, the IRS or state tax authority is less likely to challenge the taxpayers' allocations.

Practitioner Note

Land Received from a Decedent

If Bernadine did not sell the land but she died in February 2014 after applying $15,000 of fertilizer in the fall of 2013, her heirs could argue that they inherited $483,000 of farmland, $22,000 of tile line, and $15,000 of fertilizer. The $483,000 basis in the farmland is not depreciable, the $22,000 basis in the tile line is depreciable over its 15-year recovery period, and the $15,000 basis in the fertilizer can be amortized over the period of exhaustion. Because the heirs did not pay or incur an expense to acquire the fertilizer, they cannot elect to deduct the $15,000 under I.R.C. § 180.

Satisfying the Requirements of T.A.M. 1992-11-007

The requirements set out in T.A.M. 1992-11-007 may be very difficult to satisfy. If the IRS enforces those requirements, it is likely that the IRS will not allow taxpayers to allocate part of the purchase price to fertilizer in fact situations that are not as straightforward as Example 2. However, taxpayers may be successful in challenging the more onerous requirements in T.A.M 1992-11-007.

Beneficial Ownership

The facts in T.A.M. 1992-11-007 were unusual in that the taxpayer paid for residual fertilizer on land purchased by related parties. In most cases, the fertilizer and land will be purchased by the same taxpayer, and that taxpayer will have no trouble showing that he or she has beneficial ownership of the fertilizer.

Presence and Extent of Fertilizer

Taxpayers are likely to be able to satisfy this requirement because soil test technology allows taxpayers to document the presence and extent of nutrients in soil. Because the soil test results are affected by how and where the soil samples are collected, taxpayers should be careful to document the soil sampling procedure. The soil sample should be taken before the buyer applies any additional fertilizer and ideally should be taken at the time of the purchase.

Level of Fertilizer Attributable to Previous Owner

Presumably this requirement is a corollary of the previous requirement and is intended to distinguish fertilizer in the soil at the time the farmland is purchased from fertilizer applied after the purchase. It emphasizes the importance of having the soil tested at the time of the purchase.

Basis to Measure Increase in Fertility of Land

This is likely to be the most difficult requirement for the buyer to satisfy. While taxpayers have found agronomists who will establish a base fertility for land and compare that base fertility with the fertility at the time of the purchase, the IRS can find other agronomists and soil scientists who will establish a different level of base fertility.

In T.A.M. 1992-11-007, the taxpayer submitted information about the fertility of similar parcels of land in the area, but the IRS said that information did not provide a basis for measuring the increase in fertility because of the variability of the soil fertility in general. It is not clear under tax law whether the base line for comparing fertility to determine the excess fertility is land in its native condition, land as normally maintained by farmers in the area, or some other baseline.

Period of Exhaustion

The period over which fertilizer is exhausted varies dramatically by the type of nutrient, soil type, and crop rotation. Therefore, it could be very difficult and expensive for a buyer to prove the period over which each nutrient in the residual fertilizer supply is exhausted.

Other Requirements for Allocating Cost to Residual Fertilizer Supply

In future cases, the IRS may not impose the same requirements that it did in T.A.M. 1992-11-007. For example, the IRS could require the buyer to show that the residual fertilizer supply reduced or eliminated the need to apply fertilizer to the land. If the buyer applies fertilizer to the land without regard to the level of residual fertilizer, the IRS could argue that the residual fertilizer has no value and that none of the purchase price can be allocated to it.

Observation

Residual Fertilizer

Landowners generally have no incentive to apply more purchased fertilizer than the amount needed for the current year's crop. They will get no immediate return from the excess fertilizer, and heavy rains could leach the excess out of the soil before it is used by a future crop. However, there may be cases in which landowners "stockpiled" fertilizer by applying more than was necessary because the cost of fertilizer was low or because they wanted to accelerate deductible expenses to reduce their taxable income.

Livestock farmers may apply more manure than is required to meet the current crop's nutrient need in order to dispose of the manure. In that case, land may have an excess nutrient supply when it is sold.

Cost Segregation

An alternative to the *residual fertilizer supply* approach to allocating part of the purchase price of land to fertilizer in the soil that was used in T.A.M. 1992-11-007 is a *cost segregation* approach. Under this approach, the buyer of land allocates the purchase price of the land among the components of the land according to the FMV of each component. Although this approach has not previously been used to allocate the cost of land, it has been sanctioned by the Tax Court and the IRS for allocating part of the cost of a building to the I.R.C. § 1245 components that are part of the building so that the taxpayer can depreciate part of the cost over a shorter recovery period [*Hospital Corporation of America v. Commissioner,* 109 T.C. 21 (1997); A.O.D. 1999-008 (August 30, 1999)].

Under this cost segregation approach, it is more useful to refer to the asset acquired with the land as *available nutrients* rather than residual fertilizer supply because the scientific benchmarks for comparing the amount of nutrients in the soil are based on the amount of nutrients in the soil that are available for use by a crop.

Other Analogous Authority for Cost Segregation

Tax regulations and cases allow taxpayers to allocate part of the purchase price of land to assets acquired with the land and by analogy are precedents for allocating part of the purchase price of land to available nutrients acquired with the land.

Timber

Treas. Reg. § 1.611-3(f) allows taxpayers to use scientific methodology to allocate part of the purchase price of land to standing timber acquired with the land. A consulting forester estimates the value of trees

on the land at the time the land was purchased by carrying out a *back cruise*. Using a tree-trunk boring tool, the forester can shrink the tree from its current size to the tree's size at the time the land was purchased by counting backwards from the outside of the trunk the number of rings (representing a year's growth) towards the center of the trunk for the number of years the taxpayer has held the property. The forester then uses statistical sampling methods to calculate the population of each species of tree to determine the volume of each species and type of timber product at the time the taxpayer acquired the land. The value of the timber on the date the land was purchased is the estimated volume of each type of timber product multiplied by the historic price for each product. The purchase price is then allocated to the basis of the land and the basis of the timber using the FMV of each asset, as illustrated in Example 1.

Water Rights

In *Gladden v. Commissioner*, 262 F.3d 851 (9th Cir. 2001), the taxpayers sold water rights and argued that part or all of the purchase price of the land to which the rights were attached could be allocated to the basis of the water rights and reduce the gain they must recognize upon sale of the water rights. At the time the taxpayers purchased the land, the water rights were expected but had not yet legally vested.

The court stated that if the water rights had legally vested at the time the land was purchased, Treas. Reg. § 1.61-6(a) would clearly allow the taxpayers to allocate the purchase price between the basis in the land and the water rights.

The court also noted that if the water rights were not expected at the time the land was purchased, then none of the purchase price could be allocated to the water rights because the taxpayers would not have paid a premium for the land in order to acquire the water rights. [See *Plow Realty Co. v. Commissioner*, 4 T.C. 600 (1945) (land was originally valued solely for cattle-grazing qualities, and a subsequent sale of mineral rights had a zero cost basis); Rev. Rul. 66-58, 1966-1 C.B. 186 (taxpayer could not allocate cost basis in land to sale of cotton allotment acquired after land purchase and sold separately from land).]

The appellate court in *Gladden* concluded that the part of the purchase price for the land could be allocated to basis in the water rights to the extent that the taxpayers paid a premium for the land because of the expected water rights, and it remanded the case to the Tax Court to determine that premium. Citing *Inaja Land Co., Ltd. v. Commissioner*, 9 T.C. 727 (1947), the appellate court also held that if it is "impracticable or impossible" to determine that premium, the taxpayers could use the entire cost basis in the land to reduce their gain on sale of the water rights.

Under Rev. Proc. 66-11, 1966-1 C.B. 624, the basis of water rights for land in the Ogallala formation is the difference in the value of land with a supply of ground water and land without a supply of ground water.

Sod

In *Meyers v. Commissioner*, 66 T.C. 235 (1976), the court held that sod is a natural deposit and allowed the taxpayer to claim a depletion allowance under I.R.C. § 611. The taxpayer in that case showed that after 16 cuttings of sod, the available topsoil would be exhausted and it would not be economically feasible to raise sod or grain crops. The residual value of the land would be 66% of its former value as grain- or sod-producing land. In Rev. Rul. 79-411, 1979-2 CB 246, the IRS ruled that soil and loam are natural deposits and taxpayers can reduce their gain from the sale of topsoil and loam by an allowance for cost depletion.

Practitioner Note

Exhaustion of Soil Nutrients

In the *Meyers* case, the IRS argued that the taxpayers' operations were more properly characterized as a farming activity in which there is a foreseen diminution in the capacity of the land to produce crops with each planting. The court rejected that analogy but did concur with the IRS that "Owners of farmland are specifically denied a deduction for exhaustion and wear and tear due to erosion, wind, or *privation of soil nutrients* . . . See secs. 1.167(a)-6(b) and 1.612-1(b)(1), Income Tax Regs." (emphasis added).

If the IRS assertion and the court's concurrence that taxpayers cannot claim a deduction for privation of soil nutrients is true, then purchasers of land may be denied a deduction for the available nutrients they purchase with the land. However, contrary to the court's statement, Treas. Reg. §§ 1.167(a)-6(b) and 1.612-1(b)(1) do not appear to specifically prohibit a deduction for privation of soil nutrients.

Treas. Reg. §§ 1.167(a)-6(b) allows taxpayers to depreciate buildings, farm machinery, and other physical property not including land. If taxpayers can show that the available nutrients are an asset other than the land, this regulation does not prohibit a deduction for the exhaustion of the available nutrients. I.R.C. § 1.612-1(b)(1) states "In the case of any mineral property the basis for cost depletion does not include amounts representing the cost or value of land for purposes other than mineral production." That does not prohibit a deduction for the exhaustion of available nutrients.

Applying Cost Segregation to Available Nutrients

Under the cost segregation approach, after allocating the purchase price among the land, buildings, fences, tile lines, timber, mineral rights, and other assets purchased with the land, the amount allocated to the land would be further allocated among the various available nutrients in the soil and the soil as a vessel for holding the nutrients.

This approach has not been used before but is analogous to the cost segregation allowed in *Hospital Corporation,* supra. Before the *Hospital Corporation* case, the IRS did not allow taxpayers to allocate part of the cost of a building to I.R.C. § 1245 components because they are attached to a building. The Tax Court rejected the IRS's position and held that taxpayers can allocate part of the cost of a building to components such as carpeting, wall coverings, partitions, millwork, lighting fixtures, suspended ceilings, and doors, and depreciate those components over their shorter recovery periods.

By analogy, taxpayers could argue that they can allocate part of the cost of land to the nutrients in the soil and amortize the cost of those nutrients over their expected period of exhaustion.

Example 3. Cost Segregation

In January 2014, Steiner Olsen paid $520,000 ($505,000 purchase price plus $15,000 transaction costs) to Gloria Brown for 100 acres of land that had a drainage tile system and high levels of available nutrients measured by soil tests because Gloria had spread more manure on the land than was needed for annual crop production. Steiner and Gloria did not discuss the nutrients and had no agreement regarding an allocation of the land's purchase price to the tile line or available nutrients in the soil. Because the purchase was not a purchase of a trade or business, neither Steiner nor Gloria is required to file Form 8594.

Shortly after the purchase, Steiner met with his tax preparer who told Steiner that he could allocate part of the purchase price to the tile line and the nutrients in the soil if he could prove their value. Steiner obtained a map of the tile line from Gloria that showed the tiling system is 10 years old. Steiner took the map to a tiling contractor who estimated that the system has another 40 years of life and would cost $27,500 to replace. Therefore, Steiner estimates the value of the tiling system to be $22,000 [($27,500 ÷ 50 years) × 40 years].

Steiner paid an agronomist $2,000 to analyze the soil to determine if there were any excess nutrients at the time of the purchase. The agronomist compared the available nutrients in the soil with the level of available nutrients recommended by the land grant university in Steiner's state. The agronomist put a value on the available nutrients in excess of the optimal amount by multiplying the excess amount by the cost of purchasing and applying that much of the nutrient. Finally, the agronomist determined the period over which the excess available nutrients would be used up by crops in a normal crop rotation if no additional nutrients were added to the soil. **Figure 2** reports the agronomist's findings.

FIGURE 2. Amount, Value, and Exhaustion Period of Excess Available Nutrients

Nutrient	Phosphorous	Potassium	Total
Available Nutrients as Measured by Soil Tests	35 ppm	113 ppm	
Optimal Available Nutrients[1] (ppm P or K)	20 ppm	100 ppm	
Excess Available Nutrients (ppm P or K)	15 ppm	13 ppm	
Conversion Factor[2]	18	7	
Excess Available Nutrients[3] (pounds P2O5 or K2O/acre)	270	91	
Cost per Pound	59¢	47¢	
Value ($/acres)	$159	$43	$202
Pounds Removed per Year per Acre	75	90	
Exhaustion Period (Excess Pounds ÷ Removal Rate)	3.6 years	1 year	

1. Optimal available nutrients is the level recommended by the land grant university in Steiner's state for his crop rotation.
2. The conversion factors are
   - the pounds of P2O5 per acre that must be added to increase the phosphorous by 1 ppm or removed to decrease phosphorous by 1 ppm, and
   - the pounds of K2O per acre that must be added to increase the potassium by 1 ppm or removed to decrease potassium by 1 ppm.
3. The excess pounds per acre of each nutrient are the excess ppm of that nutrient multiplied by the conversion factor.

Based on the information about the available nutrients in the soil, Steiner estimated the FMV of the excess phosphorous to be $15,900 ($159 per acre × 100 acres) and the FMV of the excess potassium to be $4,300 ($43 per acre × 100 acres).

Steiner hired an appraiser who estimated that the FMV of comparable farm land without a tiling system and without excess nutrients was $510,000. Therefore, Steiner allocated the $520,000 purchase price among the land, tiling system, and available nutrients as shown in **Figure 3**.

FIGURE 3. Allocation of $520,000 Purchase Price

Asset	FMV	Allocation Formula	Allocated Price
Land	$510,000	($510,000 ÷ $552,200) × $520,000	$480,261
Tiling system	22,000	($22,000 ÷ $552,200) × $520,000	20,717
Phosphorous	15,900	($15,900 ÷ $552,200) × $520,000	14,973
Potassium	4,300	($4,300 ÷ $552,200) × $520,000	4,049
Total	$552,200		$520,000

Steiner amortized the $14,973 purchase price allocated to the phosphorous over the 3.6 year period of exhaustion shown in Figure 2 on a straight-line basis and deducted $4,159 ($14,973 ÷ 3.6) in the year of the purchase and in each of the next 2 years and the remaining $2,496 in the fourth year. Steiner deducted the entire $4,049 allocated to the potassium in the year he purchased the land because the agronomist estimated the period of exhaustion for the potassium to be 1 year.

Practitioner Note

I.R.C. § 180 Deduction

Because Steiner allocated part of the purchase price to *available nutrients* in the soil rather than to a residual fertilizer supply, he is likely to be ineligible for the I.R.C. § 180 election to deduct the $15,022 ($14,973 + $4,049) allocated to the nutrients in the year he purchased the land.

Question 1.

Does Gloria Brown (the seller) have to report the same amounts as the sales price of the land, tiling system, and nutrients?

Answer 1.

Tax law does not require Steiner and Gloria to agree on and report the same amounts as the sale and purchase price of each of the assets. However, if the IRS or the state tax authority audits either of their returns and agrees with the allocation shown on the audited return, it could identify the other party from

state reporting requirements for land sales and require the other party to allocate the net proceeds from the sale or the total amount paid using the same FMV of each asset.

For example, if the IRS audited Steiner's return and agreed with his allocation of the purchase price, it could identify Gloria as the seller from state land records and require her to use the same asset FMV to allocate her net proceeds from the sale. If her transaction costs were $25,000, her $480,000 ($505,000 – $25,000) net proceeds would be allocated among the assets as shown in **Figure 4**.

FIGURE 4. Allocation of $480,000 Net Proceeds from Sale

Asset	FMV	Allocation Formula	Allocated Price
Land	$510,000	($510,000 ÷ $552,200) × $480,000	$443,318
Tiling system	22,000	($22,000 ÷ $552,200) × $480,000	19,123
Phosphorous	15,900	($15,900 ÷ $552,200) × $480,000	13,821
Potassium	4,300	($4,300 ÷ $552,200) × $480,000	3,738
Total	$552,200		$480,000

Gain or loss on land is I.R.C. § 1231 gain or loss; all or part of the gain on the tiling system is ordinary income under the I.R.C. § 1245 depreciation recapture rules; and the net proceeds from the nutrients are ordinary income without any basis to reduce the income because the manure Gloria spread on the land had no income tax basis.

Question 2.
Can Steiner allocate any of the purchase price to nutrients if the soil tests show there was less than the optimal level of each of the nutrients?

Answer 2.
If the nutrient levels are at or below the optimal level, then the agronomist is likely to conclude that none of the purchase price can be allocated to the available nutrients. Steiner must then allocate his $520,000 purchase price between the land and tiling system using their respective FMVs.

Question 3.
How should Steiner report the $2,000 fee he paid to the agronomist?

Answer 3.
The agronomist's work is required only because of the farm-related income tax reporting requirements. Therefore, Steiner can deduct the $2,000 fee as a miscellaneous expense on line 32 of Schedule F (Form 1040) [Rev. Rul. 92-29, 1992-1 C.B. 20]. It does not matter whether he was able to use the agronomist's report to allocate some of the purchase price to nutrients.

Planning Pointer

Effect of Like-kind Exchange

If a taxpayer acquires land in a like-kind exchange, he or she can treat the improvements on the land (such as buildings, fences, and tile lines) as well as natural resources on the land (such as timber, gravel, and minerals) as like-kind property. Fertilizer and real estate are likely not like-kind property. Therefore, any purchase price allocated to fertilizer is not likely to be treated as qualified replacement property. Taxpayers could argue that nutrients are a part of the land and are therefore real property that is qualified replacement property.

Conclusion

Although there is very little guidance on allocating part of the purchase price of land to fertilizer purchased with the farmland, if taxpayers can show

1. the amount and value of the residual fertilizer supply or excess available nutrients that they purchased with the land and
2. the period the excess will be exhausted,

they have a reasonable argument for amortizing the value of the fertilizer or nutrients over the period of exhaustion. Taxpayers can arguably elect to deduct the cost of residual fertilizer supply they purchase with land in the year of the purchase under I.R.C. § 180 and in that case do not need to show the period of exhaustion.

Similarly, taxpayers who receive farmland from a decedent can arguably adjust the basis of the residual fertilizer supply or excess available nutrients to the FMV on the date of death or alternate valuation date.

Until there is further guidance from the IRS or court cases, it is difficult to know what baselines will be accepted for measuring residual fertilizer supply or excess available nutrients. It is also hard to predict what precision of soil sampling will be required to prove the presence of residual fertilizer or available nutrients. Consequently, it is hard to predict whether a taxpayer will succeed in (a) allocating part of the purchase of price of land to fertilizer or nutrients or (b) adjusting the basis of fertilizer or nutrients to the date-of-death (or alternate valuation date) value.

If the courts or the IRS sanction a high baseline for measuring residual fertilizer supply or excess available nutrients, there may be only a few cases in which there is residual fertilizer or excess nutrients over the baseline. If the courts or the IRS sanction a very precise method of sampling soil, the cost of sampling may exceed the tax savings from allocating basis to fertilizer or nutrients.